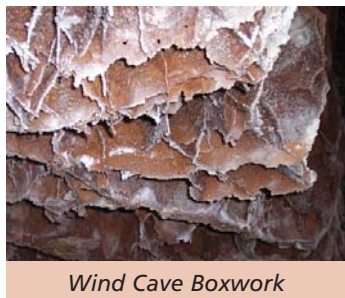




# Passages

## 100 Years of Preserving Wildlife at Wind Cave National Park

When Wind Cave was established as a national park in 1903, little more than eight miles of cave were known. It was a quiet place in western South Dakota where unique cave formations dazzled visitors and geologists alike.



Wind Cave Boxwork

The surface world – a mixed-grass prairie and ponderosa pine forest – gathered little attention. The vast prairie of the Great Plains was an ecosystem to conquer – an action needed to make way for farms and ranches.



Bison Bull

As this conquest transpired, habitats for thousands of different organisms disappeared; gone were the bison, elk, and pronghorn antelope that once roamed the land. The disappearance that generated the most discussion was the demise of the bison. These magnificent animals were being wantonly slaughtered.

In response to the carnage, and in an effort to reestablish free-ranging bison herds throughout the country, Teddy Roosevelt and William Hornaday created the American Bison Society. As the Society looked for suitable homes for these animals, they noticed the prairie of Wind Cave National Park. Within the park was a mixture of wide open prairie and small forested areas – habitats perfect for the reintroduction of vanishing prairie species. In August 1912, one hundred years ago, Congress established the Wind Cave National Game Preserve for the purpose of reintroducing bison and other big game animals threatened by changes occurring on the Great Plains.

### Returning the Animals

Fourteen bison from New York Zoological Society were delivered to the preserve in November of 1913. Within a year, elk and pronghorn were also relocated to the preserve. The Wind Cave National Game Preserve was on its way to becoming a home for prairie wildlife.

The story of protecting endangered wildlife is a long and winding one in this small national park. Early in the Preserve's history, the focus was on protecting game animals and, because of the role they play in nature's story, predators became a



Pronghorn antelope

challenge. In 1918 coyotes were such a nuisance that a federal trapper was brought in. Between 1912 and 1921, 598 predators were killed. Soon after, the populations of bison and elk reached a point where there were more animals than grazing space and they either needed to feed them or remove them. It was another 20 years before ecologists such as Aldo Leopold began talking about protecting all parts of the ecosystem, including predators.



Big Bluestem

### Protecting the Land

Because of challenges caused by the 1930's dust bowl and the ideas of Leopold and others, emphasis began to shift from simply protecting game animals to understanding the systems that support them – including grasslands and predators. These efforts helped provide the viewsheds of the park we see today, ones similar to those George Catlin described in the 1830s: *this prairie where heaven sheds its purest light and lends its richest tints.*



Reintroducing ferrets

### Traditions Continue

Wind Cave National Park's tradition of reintroducing and protecting native wildlife and the land that supports them continues today. Between July 4 and November 5, 2007, forty-nine black-footed ferrets, one of North America's rarest mammals, and a predator, were reintroduced. They are once again a resident of the park's prairie dog towns where they play an essential role in helping restore balance to the ecosystem.

### Gifts from the Past

Understanding the balances in our natural world is difficult. When early biologists started raising bison, elk, and pronghorn, it had never been done. The experience they gained helped future managers, leading to changes in ideas and practices.

Wind Cave National Park has been managed to protect amazing natural resources for more than a century. Here, thriving plant and animal communities are preserved and protected. National parks are special places where ideas evolve, concepts are developed, and we enjoy the results. Because of the historical efforts of many people, visitors from around the world have an opportunity to explore a timeless land where the buffalo still roam and the deer and antelope still play.

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**Wind Cave National Park Superintendent**  
Vidal Davila

**Mailing Address**  
26611 US Highway 385  
Hot Springs, SD 57747

**E-mail**  
WICA\_Interpretation@nps.gov

**Phone and Fax Numbers**  
605-745-4600 / 605-745-4207

**Website**  
<http://www.nps.gov/wica>

**In Case of Emergency**  
**Dial 911**

**Welcome from the Superintendent**



Welcome to Wind Cave National Park. This national park is one of the oldest in the country. Established in 1903, it is the country's seventh oldest national park and the first set aside to protect a cave.

While Wind Cave is the major attraction with its unique boxwork and significant underground cave passageways, the surface resources, including both natural and cultural resources, are also worth the stop. The buildings around the visitor center date back to the 1930s Civilian Conservation Corps. The wildlife such as bison, elk, mule deer, pronghorn antelope, prairie dogs, and black-foot ferrets are also exciting to view.

Today, visitors from around the world come to see these two parks in one. Our hope is that you have a safe and enjoyable visit to Wind Cave National Park, take plenty of pictures, participate in our programs, and leave nothing behind but footprints.

Travel Safe,

Vidal Davila  
Superintendent

# Simple Rules for Safety and to Protect Park Resources

## Protecting the Park

Park resources are for everyone to enjoy. **Do not disturb or remove plants, wildlife, antlers, bones, rocks, or any other natural or cultural feature.** They are protected by federal law. These resources are all part of the park's ecosystem and are important to the park's history and to the survival of other animals and plants. Please leave these objects undisturbed so the next visitor can enjoy them.



## Weapons

As of February 22, 2010, a new federal law allows people who can legally possess firearms under federal, South Dakota, and local laws to possess firearms while visiting Wind Cave National Park. **However, hunting and/or the use of firearms is still prohibited.** It is the visitor's responsibility to under-

stand and comply with all applicable state, local, and federal firearms laws. **Federal law prohibits firearms in certain facilities in this park;** these places are posted with signs at public entrances. If you have questions, please contact the park at 605-745-4600.

## Wildlife

**Animals in the park are wild and unpredictable. Do not approach or attempt to feed them.** Feeding animals causes them to become dependent on handouts and they may fail to survive the winter. Animals that are fed are attracted to highways where they can be struck by vehicles.

Be aware that rattlesnakes are sometimes found in prairie dog towns and other areas of the park. Bison also frequent prairie dog towns. They can run 35 miles per hour and may weigh a ton! Stay a

safe distance from all wildlife – at least 100 yards from bison and elk.

## Pets

To protect your pet and park wildlife remember: **pets are prohibited in the backcountry and on most hiking trails.** Pets are permitted on the Elk Mountain Nature Trail at the campground and on the Prairie Vista Nature Trail near the picnic area. Be sure to clean up after your pet. Pets may not be left unattended and must be on a leash at all times. Be aware that ticks are common in high grass. They may affect your pet and you.

**Do not leave your pets in your vehicle while visiting the cave or for any length of time.** The temperatures inside a vehicle can become extreme, putting your pet in grave danger. Kennel space is available in Hot Springs or Custer. Pets may not be left unattended outside of a vehicle, even if they are leashed.

## Traveling in the Park

**All vehicles (including bicycles) must remain on roadways** that are open to the public. Off-road driving or bicycle riding is prohibited.

## Slow down and enjoy the view!

When driving park roads, **obey all speed limits.** They are strictly enforced to protect you and the wildlife. In the last twenty years over eighty bison have been struck and killed by motor vehicles in the park. You can help protect the wildlife; obey all posted speed limits and watch out for animals on the road - they may appear suddenly. Keep your seatbelt fastened.



Drive safely, watch for animals on the road

## Planning Your Visit

### Visitor Center

The Wind Cave Visitor Center is a great place to start your park visit. The visitor center is open from 8:00 a.m. to 4:30 p.m. daily, with extended hours during the summer. The visitor center is closed on Thanksgiving, Christmas, and New Year's Day. All cave tours begin at the visitor center and are offered daily throughout the year when the visitor center is open. For cave tour schedules see page 7.

Exhibits, maps, book sales, backcountry permits, information about cave tours and ranger programs, lost-and-found services, and Federal Recreational Lands Passes are available here.

### Ranger Programs

When visiting the park, plan to attend a ranger-led program. While cave tours are offered all year long, additional programs are presented in the summer. For more information about ranger programs and cave tours see page 6.



### Campground

Relax at the Elk Mountain Campground. The campground is located one mile north of the visitor center. Occupancy of campsites is on a first-come, first-served basis; however, the campground generally does not fill. Each site accommodates up to eight people and two vehicles. Two sites are available for campers with disabilities.

The fee for camping is \$12 per night, per site. In the off-season

when facilities are limited, the fee is \$6 per night. Holders of the Federal Recreational Lands Senior or Access pass pay half price. Group camping is available by reservation. For group reservations call the park at 605-745-4600.

The campground has restrooms with cold water and flush toilets but no showers, electrical hook-ups, or dump stations. Firewood is available for campers. During the summer months, park rangers present campfire programs at the amphitheater.

### Backcountry Camping

Wind Cave National Park's backcountry offers visitors an excellent opportunity to experience and enjoy the abundant resources of the park. Backcountry camping is permitted in the northwestern part of the park. Several habitats and a variety of plants and animals can be found in this area.

**Backcountry campers must have a permit.** Permits are free and can be obtained at the visitor center. For your safety and for the protection of park resources, follow all regulations during your stay. Leave no trace of your visit. Pack out what you pack in. Fire danger could be high this year. Please remember: **Open fires are not permitted in the backcountry. Pets are also not permitted in the backcountry.**

### Trash and Recycling

Please help us protect the park and the planet by properly recycling or disposing of all trash. Trash receptacles and recycling facilities are available at the visitor center, the picnic area, and the Elk Mountain Campground. The park recycles glass, aluminum cans, steel cans, and plastic containers with PETE 1 or HDPE 2 markings. Please rinse recyclables before placing them in containers.

### Hiking Safely

When hiking park trails (see next page) **make sure to carry plenty of water** as daytime temperatures in the summer can exceed 100°F (38°C). Water is not readily available along the trails. Any water found in the backcountry should be treated or boiled before drinking.

Flies, mosquitoes, and wood ticks can be found in the wetter areas of the park. Be watchful for prairie rattlesnakes in prairie dog towns and near cliffs and rocky areas. Rattlesnakes will not usually strike unless provoked.



### Bicycling

Bicycling is limited to established park roads that are open to the public. **Bicycling off road, on trails, or in the backcountry is prohibited.** When bicycling, be aware that animals roam freely through the park. Keep a safe distance from bison and all wild animals. Highway U.S. 385 has wider shoulders for bicyclists than S.D. 87 where the road is winding and narrow. Bicyclists should take precautions when on this road. Traveling the park's back roads, NPS 5 and 6, provides a great opportunity to see the prairie area of the park.

### Horseback Riding

Horseback riding is a wonderful way to experience the park's backcountry. **All horse and pack animal use requires a free permit** which may be obtained at the visitor center. Almost all of the park is open to riding; however, **riding is**

**prohibited directly on any hiking trail, near water sources, on roadways, and in the campground and picnic areas.**

### Picnicking

The park's picnic area is located ¼ mile north of the visitor center and is open year-round. The picnic area contains tables and fire grates. Drinking water is available in the summer months.

### Restrooms

Restrooms are available year-round at the visitor center, picnic area, and the Elk Mountain Campground. **Please help conserve water; it is important to the wildlife, the cave, and all of us.**

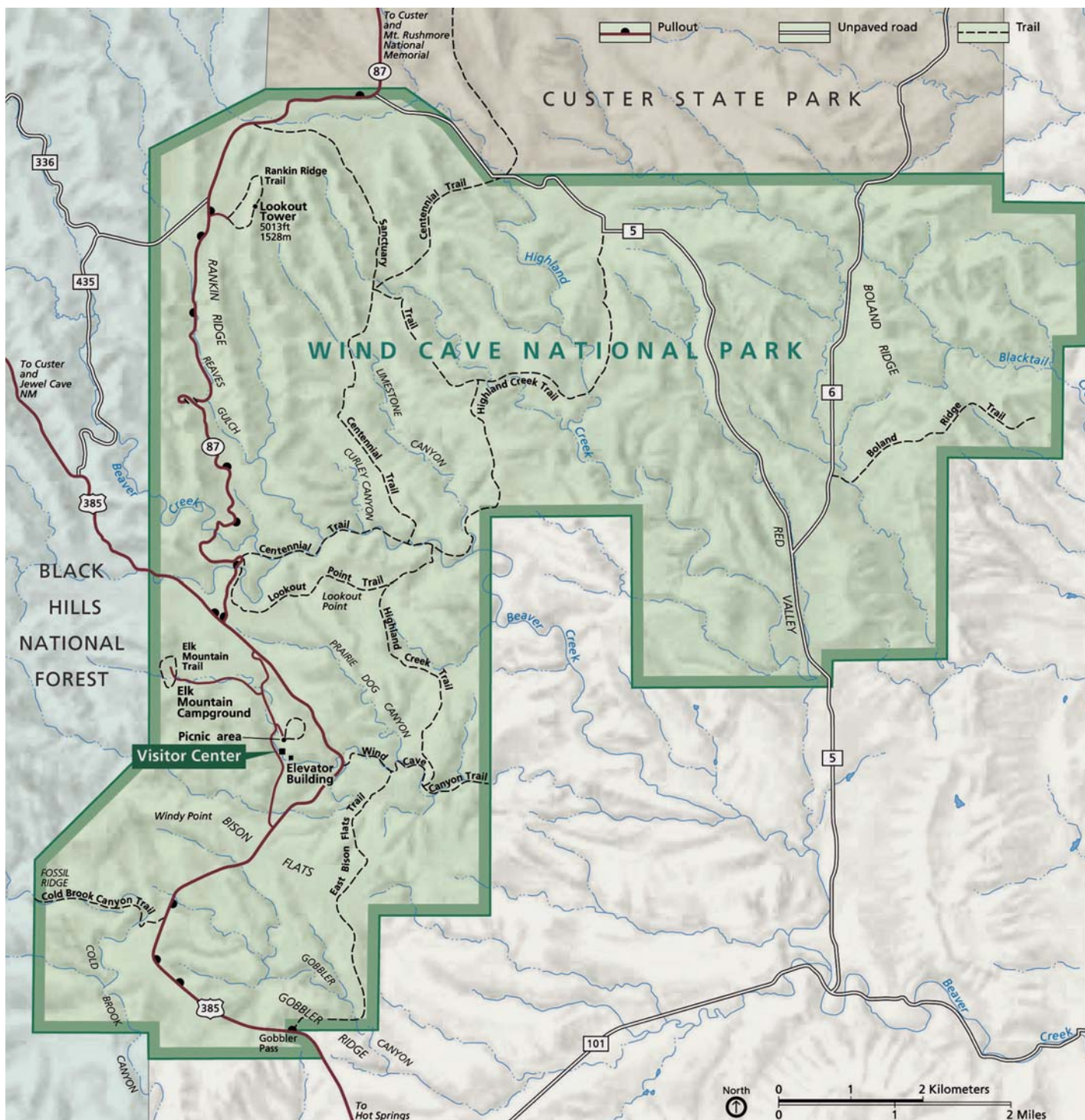
### Weather

Summer in the southern Black Hills brings warm daytime temperatures with cool evenings. Thunderstorms are common in June and July and occasionally in August. These thunderstorms can be dangerous with large hail and severe lightning. Slow-moving storms can dump large amounts of rain over a small area. The steep canyons, rock cliffs, and small creeks of the Black Hills are prone to flash flooding. Be cautious when camping near a creek bed even if it is dry. Move uphill if flooding starts.

### Area Services

The park has limited food and beverage vending services in the visitor center. The park has no lodging, gasoline, grocery, or restaurant services. These are available in nearby towns: Hot Springs (15 minutes south) and Custer (25 minutes north). For information regarding services in Hot Springs, call 800-325-6991. For Custer, call 800-992-9818. Lodging, gasoline, and some grocery services are located in Custer State Park on the north border of Wind Cave NP.

# Hiking



## HIKING IN THE PARK

Wind Cave National Park includes 33,851 acres of prairie grasslands and ponderosa pine forest. The park is a fascinating combination of ecosystems where eastern habitats meet western ones. They support a diverse assortment of life. Hiking any of the 30 miles of trails can help visitors better understand the park. You may even want to leave the trails and travel cross-country along the ridges, through the canyons, or across the rolling prairie. A topographic map is recommended and can be purchased at the visitor center.

## CENTENNIAL TRAIL

An excellent example of the diversity of the park can be seen by hiking Wind Cave's six-mile section of the Centennial Trail. This trail crosses the prairie, climbs the forested ridges, and explores the wetter, riparian habitat of Beaver Creek. The 111-mile Centennial Trail meanders from Wind Cave National Park north through the Black Hills.

## NATURE TRAILS

There are three nature trails in the park. The Rankin Ridge Nature Trail leads to the highest point in the park where the views are spectacular. The Elk Mountain Nature Trail explores an ecotone, or meeting zone, where the grassland and forest converge. The Prairie Vista Nature Trail starts at the visitor center and explores the prairie grasslands. Informational signs are available on the trails or booklets are available for purchase at the trailheads. Each trail is about one mile in length.

## Hiking Trails

	One-way Length	Difficulty	Description
<b>Cold Brook Canyon Trail</b>	1.4 miles (2.3 km)	Moderately Strenuous	The trail begins south of the visitor center on the west side of U.S. Highway 385. This trail travels through a forested area, traverses a small prairie dog town, and winds through Cold Brook Canyon to the park boundary fence. The open prairie is a good place to see raptors such as prairie falcons.
<b>Wind Cave Canyon Trail</b>	1.8 miles (2.9 km)	Easy	This former road follows Wind Cave Canyon to the park boundary fence. Wind Cave Canyon is one of the best places for bird watching. Limestone cliffs provide good nesting areas for cliff swallows, canyon wrens, and great horned owls. Standing dead trees serve as homes for red-headed and Lewis's woodpeckers.
<b>East Bison Flats Trail</b>	3.7 miles (6 km)	Moderately Strenuous	Hike one-half mile down the Wind Cave Canyon Trail to pick up the East Bison Flats Trail. This trail leads hikers across the rolling hills of the prairie. From this trail you may see panoramic views of Wind Cave National Park, Buffalo Gap, and the Black Hills.
<b>Lookout Point Trail</b>	2.2 miles (3.5 km)	Moderately Strenuous	This trail follows the rolling hills of the prairie, traverses Lookout Point, and ends at Beaver Creek. Take a side trip up Lookout Point to see the results of the 2010 American Elk Prescribed Fire. This trail can also be combined with part of the Highland Creek Trail, and the Centennial Trail, to create a 4.5-mile loop that begins and ends at the Centennial Trailhead.
<b>Sanctuary Trail</b>	3.6 miles (5.8 km)	Moderately Strenuous	The trail begins about one mile north of the Rankin Ridge fire tower road. This trail follows the rolling hills of the prairie, crosses a large prairie dog town, and ends at the Highland Creek Trail. View the Rankin Ridge fire tower at the intersection of the Centennial Trail. This trail provided a fire break for the 2000 wildfire of 1,135 acres.
<b>Centennial Trail</b>	6 miles (9.7 km)	Moderately Strenuous	The southern access to the trail is on the east side of S.D. Highway 87. The northern access is on NPS 5, 1.4 miles east of its junction with S.D. Highway 87. This trail is part of a 111-mile trail through the Black Hills. The trail leads hikers across prairies, through forested areas, and along Beaver Creek. The trail is marked with posts and trees bearing the Centennial Trail logo. The trail travels through the 2010 American Elk Prescribed Fire area.
<b>Highland Creek Trail</b>	8.6 miles (13.8 km)	Strenuous	The southern trailhead is along the Wind Cave Canyon Trail one mile east of U.S. Highway 385. The northern trailhead is on NPS 5, 2.8 miles east of S.D. Highway 87. This trail is the longest and the most diverse in the park. The trail traverses mixed-grass prairies, ponderosa pine forests, and riparian habitats of Highland Creek, Beaver Creek, and Wind Cave Canyon.
<b>Boland Ridge Trail</b>	2.6 miles (4.2 km)	Strenuous	The trail begins one mile north of the junction of NPS 5 and NPS 6. This trail climbs to panoramic views of Wind Cave National Park, the Black Hills, Red Valley, and Battle Mountain. Elk are often seen from this trail.

# Bringing Back the Wildlife

Pre-history	---Native Americans oral histories talk of Wind Cave.
1881	---Tom and Jesse Bingham write about finding Wind Cave.
1889	---South Dakota Mining Co. establishes claim on Wind Cave.
1890	---The South Dakota Mining Co. hires J. D. McDonald to manage Wind Cave. Mary, Alvin, Elmer, and he move to Wind Cave.
1891	---Regular tours of cave begin.
1892	---John Stabler buys a part the Wonderful Wind Cave Improvement Company.
1893	---Alvin McDonald dies December 15th at age 20.
1894	---McDonald and Stabler defend their ownership of the cave against the South Dakota Mining Company.
1896	---Stabler reports to the Hot Springs Star that he still has an interest in Wind Cave no matter what McDonald says. This is the first of many disputes spanning the next several years.
1897	---McDonald is accused of "jumping" the land and appeals his case to the Sec. of Interior.
1900	---Department of Interior decides neither the McDonalds nor Stablers own the cave due to failure to comply with the Homestead and Mining Acts.
1901	---1,000 acres around Wind Cave's entrance is preserved from mineral or agriculture use.
1903	---January 9, President Theodore Roosevelt signed Wind Cave National Park legislation Park size: 10,522.17 acres.
1910	---Secretary of Interior suggests Wind Cave should be state park.
1911	---Reports are sent to the American Bison Society that suggest Wind Cave land may be suitable for a game preserve.
1912	---Wind Cave National Game Preserve is established using park and adjacent lands.
1913	---Fourteen bison arrive from New York Zoological Society.
1914	---Twenty-one elk are brought to park from Jackson Hole, WY. ---Thirteen pronghorn antelope arrive from Brooks, Alberta.
1916	---National Park Service created. ---Game Preserve receives additional animals: 25 elk and 6 bison from Yellowstone NP and 9 pronghorn from Canada.
1923	---The first bison capture operation to reduce herd size occurs.
1929	---Norbeck Dam constructed as water source for game preserve.
1931	---Boundary expansion adds 1,200 acres and Beaver Creek Canyon. Park size: 11,818.94 acres.
1934	---Civilian Conservation Corps camp established at park.
1935	---Wind Cave NP and Game Preserve merge. Estes Suter placed in charge of wildlife. ---CCC removes interior fences to allow more space for wildlife.
1935	---Suter received bird banding permit.
1938	---President Roosevelt signed bill authorizing disposal of surplus park buffalo and elk.
1939	---Last grazing permits canceled
1940	---Elk Mountain Fire tower is erected (replaced in 1952).

## Where Oh Where Can the Buffalo Roam?

When Wind Cave was established as a national park, all the emphasis was on the cave. Its underground scenery amazed visitors and geologists alike. The cave's major feature, boxwork, had never been seen before. At that time the reason for creating national parks was to protect spectacular scenery such as Yellowstone, Yosemite, or Crater Lake, not ecosystems like the prairie. The acres of prairie above the cave were the domain of ranchers and farmers.



Cave Boxwork

It was not until the late 1800s when the debate over the demise of the bison was raging that habitats were discussed. People like Teddy Roosevelt and William Hornaday knew that to save an animal from extinction one had to create sanctuaries for them. Their newly

created American Bison Society began searching for a preserve for these "ungainly beasts" and discovered Wind Cave National Park's mixed-grass prairie.

Through their efforts, Congress established the 4,000-acre Wind Cave National Game Preserve in August of 1912. The reintroduction of the animals began the following year. Today the park is a wildlife watcher's paradise with herds of shaggy bison roaming freely on the prairie.

Bison share the landscape with many other animals such as elk, pronghorn, deer, coyotes, badgers, prairie dogs, black-footed ferrets, and mountain lions as well as nearly 200 species of birds. Explore the park; drive the back roads; hike the trails; and enjoy the amazing array of wildlife living in this remarkable national park.



## How to Raise a Bison Herd

In 1913, when the American Bison Society began the process of establishing a free-ranging bison (or buffalo as they are often called) herd in the newly created Wind Cave National Game Preserve, they looked to the New York City Zoo to get their animals. Here, William Hornaday had been collecting and breeding some of the few remaining wild bison.

Fred Dille, of the U.S. Biological Survey, was in charge of accomplishing this special task. To start, he had to determine how to move fourteen bison from New York City all the way across the country to their new home near Hot Springs, South Dakota.

At the zoo, animal handlers had to build special crates for the bison and then load them onto an express train. That 2,000 mile journey took 2½ days. Once the bison arrived in Hot Springs, every available truck and cart was pressed into service to move them the remaining eleven miles to the preserve. This unprecedented journey took a surprising ten hours.

By the time the bison reached the preserve, quite a crowd had gathered to see them released. There was only one problem. The bison were not willing to back out of a crate! The frustrating process was described by Dille, "To suggest to a buffalo that he must back out of a crate by poking him in the head, will work with an elk but not a bison. Your actions are but a challenge to him and he does not propose to give ground." The final operation was more a process of removing the crates from the animals than the animals from the crates. At last however, the bison were released and began their new life on the prairie. Six additional bison



Bull Bison and Pronghorn

from Yellowstone were added to the herd in 1916.

In 1935, when the park and preserve merged, care of the animals was given to Wildlife Ranger Estes Suter. Suter was interested in creating a herd that looked and behaved like bison of the "old days". He worked with Native American elders and locals to determine what a "true buffalo" really looked like and removed specific bison to achieve that goal.

Thanks to Suter's early work and because the park's bison came either from the New York City Zoo or from Yellowstone, Wind Cave has a very special herd. Genetic testing done in 2004 showed that Wind Cave's

herd is one of the only federal herds free of cattle gene introgression. What does that mean? Early in the history of preserving bison, pioneers were challenged with not only preserving the species but also making it economically successful. To do this, many ranchers experimented with domestic cattle-bison crosses. They hoped to produce a "heartier beef breed" that would be resistant to disease, require less feed, and produce more calves. This tampering became apparent when genetic analysis revealed evidence of domestic cattle gene introgression in many bison herds examined.



Today, unlike when Estes Suter sat on top of his car to decide which bison to keep and which to remove, park biologists strive to protect the herd and ecosystems through scientific studies. Ideally, "wild" bison would live in free-ranging, naturally regulated herds. But that is not possible. Most herds are confined and subjected to varying degrees of management. Therefore herd size, population structure, levels of genetic variation, and the incidence of domestic cattle introgression must all be considered in park management decisions.

For Wind Cave, the effort to establish a wild bison herd started with 14 animals. The importance of that story was noted when one of the original 14 bison died. The bison, named Sandy because of his light color, "succumbed to the rigors of his 24<sup>th</sup> winter" in December 1936. Newspapers reported the event. "There are doubtless hundreds of buffaloes born on the plains which spent their last days in some park or zoo, but Sandy was one of the few to be born in a zoo and to die on the open range."

Suter, Hornaday, Dille, today's resource managers, and others have taken part in this adventure. They have provided us with the opportunity to see bison born and raised on an open range. And, if we are lucky, to see a herd so large they seem to fill the prairie.

## Protecting Pronghorn

Reintroducing prairie animals continued in 1914 when thirteen pronghorn antelope were brought to the park from Alberta, Canada. While the other animals thrived, the pronghorn did not. A.P. Chambers, the first warden of the preserve, kept the captive pronghorn in small enclosures and fed them ground corn and alfalfa. The food apparently disagreed with them since he reported three died of indigestion.

Chambers also had trouble from predators. Wild pronghorn, according to Fred Dille, "are crazy to handle. So the wise heads of the Biological Survey figured



Pronghorn Males and Females

it was best to capture the kids when first born and rear them. This was successful except they were too tame and not afraid of any dog or man." This, of course, included coyotes and bobcats. In fact, predators were such

a problem that in 1918 a trapper was hired to rid the preserve of them. Between 1912 and 1921, 598 predators were killed. Still, by 1924, the herd was down to

only seven does. Soon after, a pronghorn buck was brought in from Nevada and the herd began to grow.

Eventually, Chambers realized that the problem was not totally the fault of predators. Pronghorn, the fastest North American land mammal, need space to escape predators. Keeping them in enclosures was like serving them up as a meal. Chambers summarized his challenges saying, "The propagation of the (pronghorn) antelope is difficult. The only way this can be accomplished is by setting aside large tracts of land. They will not thrive in confinement."

In 1935, when the preserve and Wind Cave National Park merged, the Civilian Conservation Corps removed interior fences. The larger 11,000-acre range seemed to have an effect, "It was interesting to watch the antelope the first day they found they could get on the new range. They covered the entire east range in a comparatively short time, running in all directions."

Today there are close to 100 pronghorn in the park. But their numbers still fluctuate depending upon the number of coyotes and other predators and their ability to leave the park by crawling under the fences. Resource managers annually count these swift creatures each September to make sure the park has a healthy reproducing population.

## The Ever Elusive Elk

Since their reintroduction in 1913 and 14, seeing wild animals like bison, pronghorn, and elk in their natural environment has been one of the thrills of visiting this national park. Protecting these animals and their habitat is a primary goal for the park. One of the best ways to protect them and their habitat is to define and maintain the park's "carrying capacity". To do this, biologists must determine how many animals of all species can live here without "eating themselves out of house and home".

To accomplish this goal, scientist recently studied the park's elk population and determined their numbers should range between 232-475 animals. Unfortunately, in the fall and winter, there may be twice that number in the park. Winter use of the park by large numbers of elk burdens ecosystems that support elk and many other animals. Elk tend to browse on small hardwoods. Botanists noticed that many hardwood areas were struggling to survive because of this browsing. Keeping elk away from developing aspen, ash, willow, and chokecherry affords these plants the opportunity to mature, providing habitat and food for many species.

To learn more about this, park biologists have been placing GPS collars on elk to track their seasonal



Small Herd of Elk on Ridge

movements in and out of the park. They discovered that some only spend brief periods of time within park boundaries. These studies also determined where and when the elk cross the fence. The park modified these fence crossings with gates that can be raised or lowered when needed.

These newly created "elk gates" are now being lowered during times when elk tend to leave the park and raised before they are likely to return. By restricting their movement we can maintain the elk population, protect the park ecosystems, and provide recreational opportunities for elk hunters outside park boundaries.

Through research, park managers build an understanding of the delicate balance between the needs of the animals and the needs of the system that supports them, making this a vibrant, healthy environment.

## One Hundred Years and Still Going

Throughout their existence, black-footed ferrets have been elusive. They are dependent upon prairie dogs for ninety percent of their diet and prairie dog burrows provide essential shelter for ferret families. Since prairie dogs are considered pests and were being eliminated throughout the West, they and, in turn, ferrets became more and more scarce until by the late 1970s black-footed ferrets were thought to be extinct.

In 1981, a dramatic discovery raised the hopes of many conservationists. Shep, a ranch dog, found a black-footed ferret near Meeteetse, Wyoming. This led to a discovery of about 130 ferrets and hope for the species. Tragically, outbreaks of canine distemper, and probably sylvatic plague, nearly killed the population. Between 1985 and 1987 biologists took the last known 18 ferrets to a captive breeding facility. At that time,



these were probably the rarest mammals on earth. Since then, incredible efforts have been made to save this important species. Hundreds have been reintroduced in the wild.



This Black-footed ferret was brought to the park in 2010

In 2007, Wind Cave National Park continued its role as a place that reestablished native species to the Great Plains. A total of forty-nine black-footed ferrets were reintroduced to the park's prairie dog towns in 2007 with twelve more added in 2010. The presence of this remarkable predator helps restore balance to the prairie ecosystem and provides an opportunity for visitors from around the world to see a rare and elusive animal on the prairies of Wind Cave National Park.

---CCC camp closes.	1942
---Park boundary expanded from 11,818 to 28,059 acres.	1946
---About 100 head of bison escaped from the park and mingled with Custer State park herd.	1951
---Transient herd of about 1,300 elk creating a problem. Efforts made to drive some of them into Custer State Park.	
---\$2,750 received for seeding for soil and moisture conservation. Native grasses such as buffalo, grama, and western wheat grass were purchased.	1953
---Highway 87 opens connecting Custer State Park to Wind Cave NP allowing wildlife viewing.	1956
---Program inaugurated to control noxious weeds.	1960
---First elk capture operation to reduce herd size occurs.	1969
---First prescribed burn in Wind Cave NP.	1973
---Wind Cave NP placed under quarantine for brucellosis by South Dakota.	1982
---Brucellosis Quarantine lifted.	1986
---Joint study with Texas A & M regarding bison genetics begins.	1999
---Wind Cave length: 100 miles.	2001
---Casey family approaches park about purchasing their land to expand the park.	2002
---Chronic Wasting Disease found in Wind Cave elk herd.	
---Wind Cave National Park is 100 years old!	2003
---A fence erected around aspen stand in northwest corner of park to protect grove from being browsed by ungulates.	
---Chronic Wasting Disease found in mule deer herd. Park begins a three-year study.	
---A 4200-acre cooperative prescribed burn with Custer State Park.	2004
---Genetic research on Wind Cave bison herd reveals "the absence of detectable domestic cattle introgression".	
---Boundary Expansion passed with Public Law 109-71.	2005
---Elk study begins on population density and movement inside and outside of the park. GPS collars are put on 54 elk.	
---Forty-nine black-footed ferrets released into the park. The first seven ferrets were released on July 4 <sup>th</sup> .	2007
---23 bison transported to Mexico. First international transport of bison.	2009
---Dusting for fleas starts on Bison Flats prairie dog towns to help protect against plague.	
---Received 12 additional black-footed ferrets.	2010
---American Elk Prescribed Burn, 3400 acres, largest single burn in park's history.	
---The Conservation Fund purchases Casey Land to hold for park.	
---Casey Land purchased from The Conservation Fund using Land and Water Conservation Funds adding 5,556 acres to park. Park size: 33,851 acres.	2011
---Wind Cave National Park celebrates one hundred years of resource management.	2012

# Park Information

## Cave Tours

### Cave Tour Information

All cave tours are ranger-guided and leave from the visitor center. The cave temperature is 53°F(11°C) year round. A jacket or sweater is recommended. Shoes are required. Sandals are not recommended. Any clothing, foot-wear, or gear worn in caves from states where white-nose syndrome is found are not permitted on any cave tour.

Tickets are sold at the visitor center. **Tickets must be purchased at least five minutes before tour times.**



Cave Boxwork

### Natural Entrance Tour 1¼ hours, ½ mile

This tour includes a visit to the only known natural entrance of Wind Cave giving visitors the opportunity to see how the cave got its name. Participants enter the cave through

a man-made entrance and journey through the middle level of the cave. Wind Cave's famous boxwork is abundant throughout this trip. Popcorn and frostwork can also be seen along the trail. Most of the 300 stairs along this route are down. This tour is moderately strenuous and exits the cave by elevator. This is an excellent tour for children.

### Garden of Eden Tour 1 hour, ¼ mile

This tour is the least strenuous with only 150 stairs. It is a wonderful sample of Wind Cave. Small amounts of all of the beautiful cave formations – boxwork, popcorn, and flowstone – are seen along the trail. The tour is for people with limited time or abilities. This tour enters and exits the cave by elevator.

### Fairgrounds Tour 1½ hours, ½ mile

This tour explores both the upper and middle levels of Wind Cave. Boxwork is abundant along the trail in the middle level of the cave. In the upper level, the trail winds through large rooms and into areas where popcorn and frostwork can be seen. This is the most strenuous walking tour. The tour enters and exits the cave by elevator. There are 450 stairs along the route with one flight of 90 steps up.



### Candlelight Tour 2 hours, 1 mile

Experience the cave by candlelight. This tour takes place in a less developed, unlighted part of the cave. Each participant will carry a candle bucket. Shoes with non-slip soles are required. No sandals of any kind are permitted. This tour is limited to 10 people and the minimum age is 8. This strenuous tour covers one mile of rugged trail. **Reservations are strongly recommended.** Reservations are accepted beginning one month before the tour. Call the park at 605-745-4600 for reservations or more information.

### Tours For Visitors With Special Needs

The visitor center and the cave are accessible to people with limited mobility. Please call to make special arrangements or ask at the information desk for a special tour. Limited areas of the cave are accessible to wheelchairs. The fee for the tour is \$5.00 for adults and half price for Senior or Access pass holders.



Cave Frostwork and Popcorn



### Wild Cave Tour 4 hours, ½ mile

Explore the cave away from the developed trails. On this tour visitors will be introduced to the basics of safe caving.

Wear old clothes and gloves, as much of the trip includes crawling. Long pants, long sleeved shirts, and sturdy, lace-up boots or shoes with non-slip soles are required. No sandal of any kind is permitted on this tour. The park provides hard hats, lights, and kneepads.

Please do not bring jewelry, watches, or other valuables on the tour. Clothing worn on the Jewel Cave Wild Cave Tour is not permitted in Wind Cave since this clothing could be covered with manganese, which could stain the cave. Clothing and gear used in areas with potential white-nose syndrome contamination are not permitted in the cave.

This tour is limited to 10 people and the minimum age is 16. A signed parental consent form is required for participants 16 and 17 years old.

**Reservations are required.** Reservations are accepted beginning one month before the tour. Call the park at 605-745-4600 for reservations or more information.

## Serving to Preserve

How many people have you "friended" in the last few years? It seems that everybody needs a friend, and recently Wind Cave National Park was "friended" by a group of local citizens. The Friends of Wind Cave National Park is a group dedicated to supporting and promoting Wind Cave National Park as a natural and cultural treasure. Lon Sharp, President of the Friends Group, states their mission as "expanding the awareness of the unique value of Wind Cave."

Recently the Friends helped replant trees near the park visitor center. The original trees had been removed because they were infected with a blue fungus. The trees, planted by the Civilian Conservation Corp,



Lon Sharp with Mather Plaque

were an integral part of the cultural landscape of Wind Cave National Park Headquarters and it was important to replace them. Seeing this need, the Friends responded by spending the day at the park digging holes and planting trees.

Besides planting trees, the newly formed Friends of Wind Cave National Park assisted the park in placing a bronze plaque honoring Stephen Mather near the visitor center. The park acquired the plaque in the 1930s after the death of Mather, the first director of the National Park Service, but it had been in storage since the visitor center was remodeled in 1979.

"This was a great opportunity to begin a long-term relationship with Wind Cave," said Friends president Lon Sharp. "We had a strong response from our members on a picture perfect day to be in the park."

Friends groups are important because they form a partnership between the community and the park. Members act as ambassadors to help extend the presence and values of the park into the community. They also help leverage the work of park employees through donated labor and funds and promote a strong sense of stewardship of park resources.

If you are interested in becoming a Friend of Wind Cave National Park visit [www.friendsofwindcavenp.org](http://www.friendsofwindcavenp.org).

## Walks and Talks

### Campfire Program

Become better acquainted with park resources by attending an evening campfire program. These talks are presented during the summer at the Elk Mountain Campground Amphitheater. Topics may include wildlife, plants, geology, cave exploration, park management, or history. The programs last about 45 minutes.

### Evening Hike

Explore the happenings on a prairie dog town at night and possibly see an endangered species – the black-footed ferret! These evening hikes, presented late June thru July, start at the Elk Mountain Campground Amphitheater before driving to a nearby site. Bring a flashlight and wear hiking boots. Check at the visitor center for details.

### Discovery Activity

Daily, during the summer, ranger talks or demonstrations take place at the visitor center. These programs explain some facet of the park. Topics may include local wildlife, plants, geology, area history, or cave surveying. Check at the visitor center for meeting place and topic.

### Become a Junior Ranger

The Junior Ranger Program is an exciting opportunity for children and their families to learn about the park. Becoming a Junior Ranger helps youngsters understand the park's ecosystems, the cave, and the animals. It also helps them learn how they can help protect all parts of our environment. Free Junior Ranger booklets are available at the bookstore.



Evening Campfire Program

# Ranger Programs

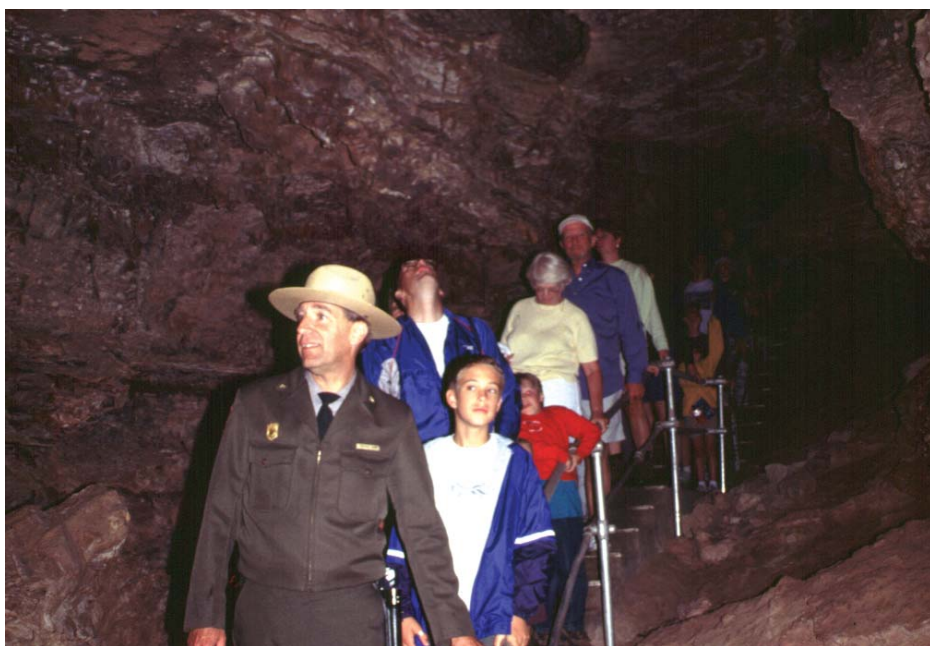
## Cave Tour Fees

Tickets must be purchased at least five minutes before tour time

	Garden of Eden Cave Tour	Natural Entrance Cave Tour	Fairgrounds Cave Tour	Candlelight Cave Tour	Wild Cave Tour
<b>Adult</b> 17 & Older	\$7.00	\$9.00	\$9.00	\$9.00	\$23.00
<b>Youth</b> age 6 -16	\$3.50	\$4.50	\$4.50	*\$4.50	**Not Permitted
<b>Infants and Toddlers</b> age 0 -5	Free	Free	Free	Not Permitted	Not Permitted
<b>Senior/ Access Pass</b> cardholders only	\$3.50	\$4.50	\$4.50	\$4.50	\$11.50

\* Minimum age for Candlelight Tour is 8

\*\* Minimum age for Wild Cave Tour is 16. The fee is \$23.00



## Cave Tour Safety and Information



All tours are ranger-guided and leave from the visitor center. Tickets are sold on a first-come, first-served basis except for the Candlelight and Wild Cave tours (see Reservations below). During peak summer visitation, long waits for tours may be encountered. To avoid waits, the best time to visit the cave is during the early hours of the day. During the summer, weekends are good times to visit; Tuesdays and Wednesdays are the busiest days. Reservations for school and organized groups are available (see Reservations.)

Wind Cave is 53°F (11°C) throughout the year so a sweater or jacket are recommended. Shoes are required on all tours. Cave trails are dimly lighted and trail surfaces may be uneven, wet, and slippery. Do not wear sandals. Ceilings along the tour route are low, requiring some bending.

There are no restrooms in the cave. No eating, drinking, smoking, chewing tobacco or gum is allowed in the cave. For the protection of the cave, do not touch or remove rocks or formations and do not step off the trail.

Cave tours are moderately strenuous. Persons with claustrophobia, heart or respiratory conditions, or other physical limitations should reconsider. A tour is available, by request, for visitors with special needs. Call 605-745-4600 or ask at the information desk.

**Any clothing, foot-wear, or gear worn in caves from states where white-nose syndrome is found are not permitted on any cave tour.**

Photography is permitted, but no tripods. Pets are not allowed in the cave. Do not leave your pets in your vehicle while visiting the cave. See Page 2 for more information about pets in the park.

### Reservations

Tickets for most cave tours are sold on a first-come, first-served basis; however, reservations are accepted for schools or large groups. Reservations are strongly recommended for the more strenuous Candlelight Tour and required for the Wild Cave (spelunking) Tour. Reservations are accepted beginning one month before the tour and must be made by phone. Call 605-745-4600 for information or reservations.

## Program Schedule



### April 15 – April 27, 2012

Visitor Center: 8:00 a.m. – 5:00 p.m.  
Garden of Eden Tour: 9:30, 11:30, 1:30, and 3:30

### April 28 – May 25, 2012

Visitor Center: 8:00 a.m. – 6:00 p.m.  
Cave Tour: 9:00, 10:30, 11:30, 1:30, 2:30, and 4:30

### May 26 – May 28, 2012, Memorial Day Weekend

Visitor Center: 8:00 a.m. – 6:00 p.m.  
Garden of Eden Tour: 10:00, 12:00, and 2:00  
Fairgrounds Tour: 11:00, 1:00, and 3:00  
Natural Entrance Tour: 8:40, 9:20, 10:30, 11:30, 12:30, 1:30, 2:30, 3:30, 4:30, and 5:00  
Campfire Program: 8:30 p.m., Saturday and Sunday

### May 29 – June 9, 2012

Visitor Center: 8:00 a.m. – 6:00 p.m.  
Garden of Eden Tour: 12:30, 1:30, 2:30, and 3:30  
Natural Entrance Tour: 9:00, 10:00, 11:00, 1:00, 2:00, 4:00, and 5:00

### June 10 – August 18, 2012

Visitor Center: 8:00 a.m. – 7:00 p.m.  
Garden of Eden Tour: 10:40, 12:40, and 2:40  
Natural Entrance Tour: 8:40, 9:20, 10:00, 11:00, 12:00, 1:00, 2:00, 3:00, 4:00, 5:00, 5:30, and 6:00  
Fairgrounds Tour: 9:40, 10:20, 11:40, 12:20, 1:40, 2:20, 3:40, and 4:20  
Candlelight Tour: 10:30 a.m. and 1:30 p.m.  
Wild Cave Tour: 1:00 p.m.  
Campfire Program: 9:00 p.m.

### August 19 – September 3, 2012

Visitor Center: 8:00 a.m. – 6:00 p.m.  
Garden of Eden Tour: 10:30, 1:40 and 3:40  
Natural Entrance Tour: 9:00, 10:00, 11:00, 12:00, 1:00, 2:00, 3:00, 4:00, and 5:00  
Fairgrounds Tour: 9:30, 11:20, 1:20, and 3:20  
Candlelight Tour: 1:30 p.m.  
Wild Cave Tour: 1:00 p.m. **Weekends Only** August 19, 25, 26, and September 1 and 2  
Campfire Program: 8:00 p.m.

### September 4 – September 22, 2012

Visitor Center: 8:00 a.m. – 6:00 p.m.  
Natural Entrance Tour: 9:00, 10:30, 11:30, 1:30, 2:30, and 4:30  
Evening Program: 7:00 p.m. Tuesday, Thursday, and Saturday

### September 23 – October 13, 2012

Visitor Center: 8:00 a.m. – 5:00 p.m.  
Natural Entrance Tour: 9:30, 11:30, 1:30, and 3:30

### October 14, 2012 – Mid April, 2013

Visitor Center: 8:00 a.m. – 4:30 p.m. daily except Thanksgiving, Christmas, and New Year's Day  
Garden of Eden Cave Tour: 10:00, 1:00, and 3:00

**Tour schedules are subject to change. Please call 605-745-4600 to confirm tour times. Programs are subject to cancellation during severe weather.**

*For the protection of the cave, do not touch or remove rocks or formations and do not step off the trail.*

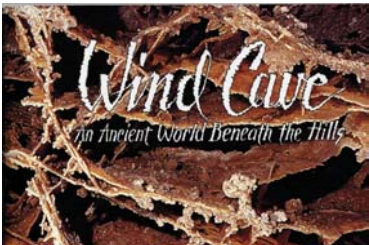
**IN CASE OF AN EMERGENCY  
Dial 911  
or contact any park ranger or  
call the park's visitor center  
at 605-745-4600.**



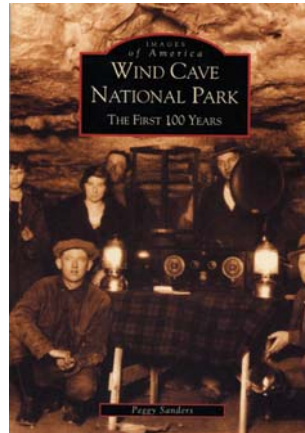
## The Black Hills Parks & Forests Association

The Black Hills Parks & Forests Association sells books, maps, and other park related publications in visitor centers at Wind Cave National Park, Jewel Cave National Monument, Custer State Park, Buffalo Gap National Grassland, and Black Hills National Forest. The association publishes books and materials about these areas. Cooperating associations are non-profit, tax exempt organizations authorized by Congress to promote educational and scientific activities within national parks. All profits from association sales support the educational, interpretive, and research activities of these agencies.

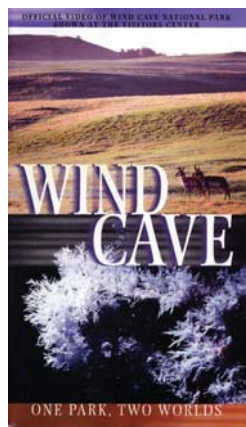
Many different types of publications are available in the bookstores including books specific to Wind Cave National Park and others about local natural and cultural history. These publications, maps, and items are available at the bookstore, by mail order, or from the association web site, [www.blackhillsparks.org](http://www.blackhillsparks.org), fax: 605-745-7021, or email [bhpf@blackhillsparks.org](mailto:bhpf@blackhillsparks.org). Membership in the Black Hills Parks and Forests Association supports the organization and entitles members to a 15% discount on all purchases. The membership is \$29.95 per year. For more information call 605-745-7020.



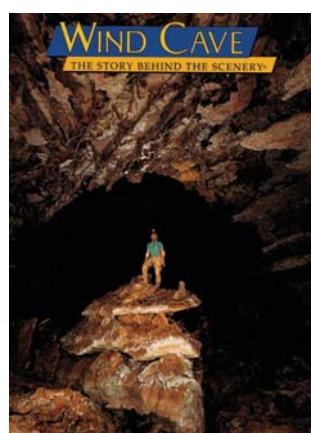
**Wind Cave: An Ancient World Beneath the Hills** – In this wonderful, easy-to-read book, Art Palmer explains the geology of Wind Cave, how it is related to the Black Hills, and how the cave and its formations formed. The charts and graphs help make the topic easily understood by people unfamiliar with geology. The pictures of the unusual Wind Cave boxwork alone make this book well worth the investment. **\$8.95**



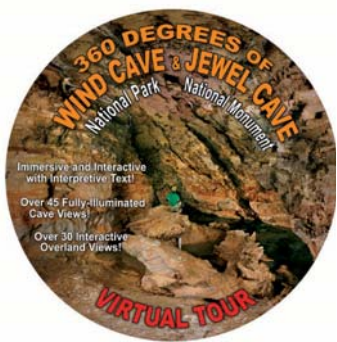
**Wind Cave National Park: the First 100 Years** – In 1903, Wind Cave National Park became the eighth national park in the nation and the first park created to protect a cave. Peggy Sanders encapsulates the park's fascinating 100 year history in over 200 vintage images. Travel through time with the early cave and animal management teams, through the Great Depression, and into the present with an amazing collection of classic pictures and stories. **\$21.99**



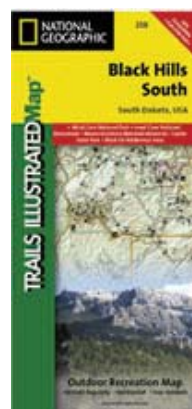
**Wind Cave: One Park, Two Worlds** – takes viewers on a journey into two vastly different landscapes of uncompromising beauty – the prairie and the cave. This 20-minute movie tells the dramatic stories of Wind Cave National Park's natural and human history, including the story of Alvin MacDonald – the first explorer of this subterranean world and the story of the bison – the symbol of the Great Plains. Through breathtaking photography this video captures the spirit, mystery, and beauty of one of America's oldest National Parks. **\$19.95**



**Wind Cave, The Story Behind the Scenery** – If you are interested in learning more about the ecosystems, wildlife, and history of Wind Cave National Park, this book by Ron Terry is an excellent choice. It contains outstanding photographs and information about the cave and its unusual boxwork formation. This book goes beyond the cave, including photos and insights about the park's incredible prairie. This book is part of a series by KC Publications that explores the natural, geological, and cultural history of the national parks. **\$11.95**



**Take a 360 degree Tour of Wind Cave National Park** – This CD has over seventy immersive and interactive panoramic views of Wind Cave National Park and Jewel Cave National Monument. Share the views of the cave or the prairie that you enjoyed on your visit or explore the wilderness of the cave through pictures. The CDs play on your Mac or PC computers allowing you to see maps, photographs, and a 3D model of the cave. The 3D program provides views of the underground or surface world of both parks. **\$18.95**



**Trails Illustrated Map, Black Hills South** – If you are interested in hiking, this is the trail map to have. This tear-proof, waterproof map details the Southern Black Hills from Mount Rushmore to the Cheyenne River. Wind Cave National Park, Custer State Park, Jewel Cave National Monument, Mount Rushmore National Memorial, the Southern Black Hills National Forest, and the Centennial and Mickelson Trails are included. The map is part of a series of National Geographic Trails Illustrated Maps. There is also a Black Hills North map detailing the northern half of the Black Hills National Forest. **\$11.95**


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26611 U.S. Hwy 385  
Hot Springs, SD 57747

Fax to: 605-745-7021

Website: [www.blackhillsparks.org](http://www.blackhillsparks.org)



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