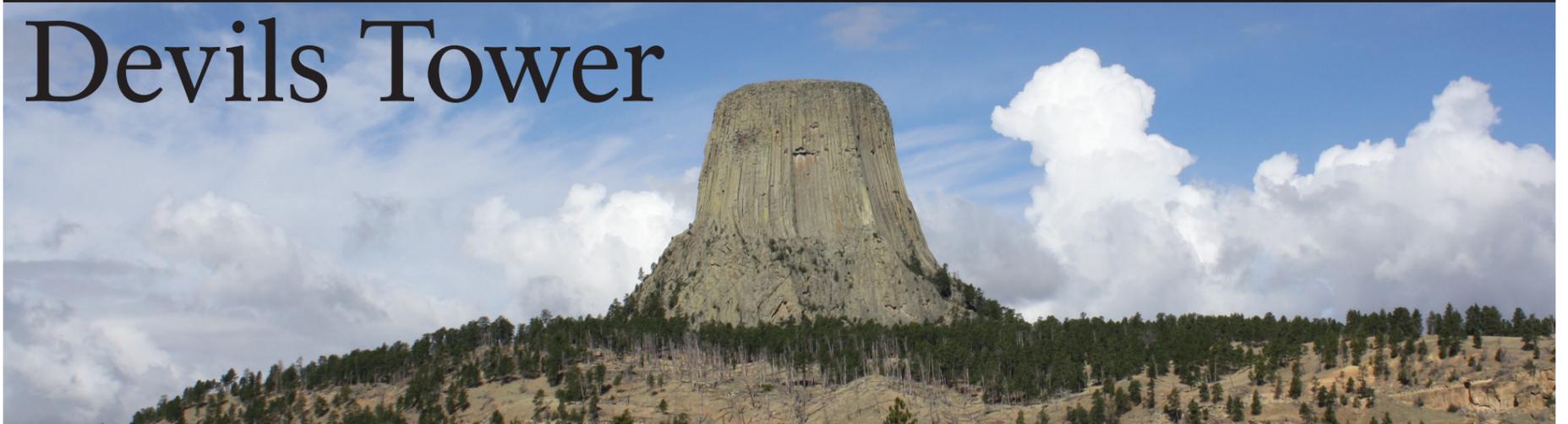




Devils Tower



Welcome to Devils Tower National Monument!

WELCOME TO AMERICA’S FIRST NATIONAL MONUMENT!

Devils Tower is an iconic formation, a monolith rising above the surrounding countryside. As you explore the monument today, the Tower you see will be remarkable, everlasting in its powerful appearance. Yet depending on the time of day and the weather, the formation can look dramatically different. Often, it is yellow-green against a clear blue sky, but in shadow the Tower is black and seems to stand a little taller. When fog rolls in, it is shrouded in mist, only peeking out occasionally to say hello. If you visit in the winter, the Tower will be covered in a dusting of snow. During sunset, the sun’s rays will turn its face orange, reflecting the colors of the sky. In this way, the formation is remarkably dynamic, changing its appearance as the day and seasons progress – if you come back, you may see a different Tower than the one you see today. Yet Devils Tower is also timeless, changing on a scale imperceptible to human eyes.

Since people first arrived at Devils Tower more than 10,000 years ago, the monolith has remained essentially unchanged. The Tower you are seeing today is the same formation that Theodore Roosevelt protected as the nation’s first national monument in 1906, the same landmark that explorers and settlers used as they moved west across the country, and the same stone monolith where Native Americans have gathered and prayed for thousands of years. The sense of awe that the Tower gives us is truly timeless. As you explore the monument today, we invite you to reflect on this timelessness. What does Devils Tower mean to you? Carry this meaning with you as you continue to explore America’s public lands – get out there and Find Your Park!

Things to Know:

- The speed limit in the park is 25 mph, except in the picnic area and campground where it is 5 mph.
- The park is open 24 hours/day; you can enter and exit at any time.
- The Tower is considered sacred by indigenous people; treat this place with respect.
- The park road is 3 miles and ends at the visitor center.
- Our picnic area is one mile from the park entrance. Turn at the first left at the administration building.
- The park campground is just beyond the picnic area. It is self-registration and first-come, first-served.
- Restrooms are located behind the visitor center, or in the picnic area and campground.
- No food or drink is sold within the park. Water fountains are available in the summer.
- Devils Tower is both a “park” and a “monument.” See page 4 for more about the technical difference!

Message from the Superintendent

Devils Tower National Monument is one of over 400 sites within the National Park System. The purpose of our park, also known to many as Bear Lodge, is to protect and preserve a world-class geologic and sacred landmark that has shaped thousands of years of American Indian culture and the history of the Northern Great Plains.

The park staff and I invite you to enjoy your first national monument. We hope you have a memorable and inspirational experience! Respect the natural and cultural resources protected here: diverse habitats, beautiful views, soundscapes, night skies (half the park is after dark!), geology, archeology, historic structures, and more. Spend time with a ranger to learn more about your park!

Additionally, please respect your fellow visitors as we share this place. In 2018, the park received nearly 500,000 visitors, primarily in June, July, and August. Please be courteous, patient, and observe rules and regulations (see below).

It takes all of us to protect and preserve places like Devils Tower. Use your visit as an opportunity to learn about and appreciate your park. Reflect on why we are here and why we protect these sacred landscapes. Share your experiences with your fellow travelers, or with friends and family on our social media sites (page 2).

Join us in stewardship,

Superintendent Amnesty Kochanowski and
Devils Tower National Monument Staff

Find it Inside:

Page:	Content:
2	Map and Parking Info
3	Geology
4	Culture and History
5	Rock Climbing
6	Animals
7	Plants
8	Ranger Programs



Amnesty Kochanowski served as Acting Superintendent starting in July 2018 and was selected permanently in December 2018. NPS / Joe Bruce

During Your Visit

Have a safe and enjoyable visit by remembering these park rules and advisories.



Respect nature.

Leave plants, rocks, and artifacts where you see them. Stay on trails to protect plants.



Do not feed wildlife.

It is illegal to feed wildlife, including prairie dogs. It is also dangerous and harmful to both humans and animals.



Keep drones at home.

Launching, landing, or operating remotely piloted aircraft is prohibited within the monument.



Drink water.

Heat-related illness is very common. Stay hydrated. Water is available in the campground, picnic area, and outside the visitor center.



Monitor weather conditions.

Sudden weather changes are possible. Thunderstorms and hail are common in the Black Hills. The safest place is your vehicle.



Be responsible with pets.

Pets are not allowed on trails. Pets must be leashed. Pet-friendly areas include parking areas, roadways, the campground, and picnic area.



National Park Service
U.S. Department of the Interior
Devils Tower Visitor Guide
2019

Published by

Devils Tower Natural History Association (DTNHA) is the non-profit partner of the park. They operate the bookstore in the visitor center. Founded in 1958, DTNHA enhances park operations and the visitor experience through their financial support. See the back page for more info!

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Stay connected via social media!

facebook.com/devilstower.nps
 @DevilsTowerNM
 #DevilsTowerNPS

Fees & Passes Info

Devils Tower National Monument Passes:

- 7-day vehicle pass: \$25
- 7-day motorcycle pass: \$20
- 7-day pedestrian pass: \$15
- Devils Tower Annual Pass: \$45

National Parks and Federal Recreation Lands Passes:

- Interagency Annual Pass: \$80
- Interagency Senior Annual Pass: \$20
- Interagency Senior Lifetime Pass: \$80

Devils Tower Camping Fees:

- Standard Site: \$20/night
- With Senior or Access Pass: \$10/night
- Group Site: \$30/night

Getting Around the Park

Devils Tower National Monument is a tiny park, but it gets busy! The park has a single 3-mile road from the entrance to the visitor center. There is a paved spur which leads to the picnic and campground areas, and a gravel spur to access Joyner Ridge Trail and scenic view. Parking is very limited; read below for suggestions on where to go and what to do during peak visitation.

PARKING

Parking is often full from 11 am to 3 pm in the summer. The main parking area is 3 miles from the entrance at the base of the Tower. Reference the small map to the right of this column. All travel is one way through the parking lots. Watch for pedestrians, stopped or reversing vehicles, and emergency vehicles. The picnic area is an alternative parking location; from there you can hike to the visitor center or access the prairie dog town.

LONG VEHICLE PARKING

Parking for long vehicles is limited. RV parking is along the shoulder of the outbound lane from the paved parking lot. Vehicles with trailers are required to drop their trailers at long vehicle parking or in the picnic area.

HIKING

The most popular trail in the park is the Tower Trail. This 1.3-mile paved footpath starts across from the visitor center and circles the base of Devils Tower. Find signs along the path to

learn more about your park. The Tower Trail is a relatively easy walk, although it has several steep sections.

For a more traditional hiking experience, consider the Red Beds Trail. This makes a 2.8-mile loop with great views and diverse habitats. Access the trail from the main parking area or via connector trails from prairie dog town. This trail has about 450 feet of elevation change.

To get away from the busy Tower Trail and visitor center areas, head out to Joyner Ridge. A 1.5-mile loop offers great views of the leaning north face

of the Tower. This easy hike has one major elevation change as you descend (or ascend) the ridgeline.

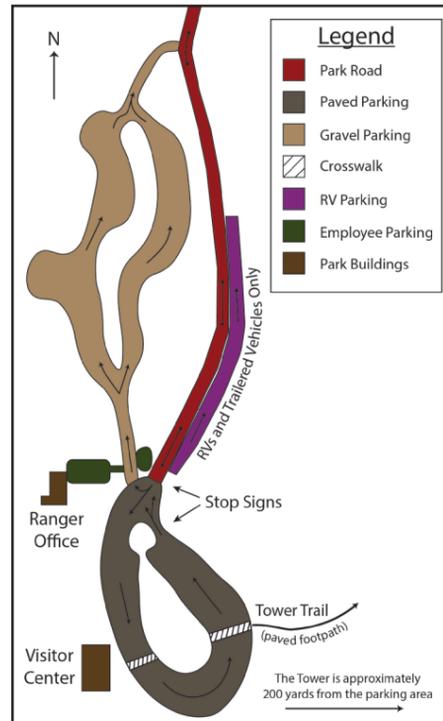
Please remember that **pets are not allowed on park trails**.

VISITOR SERVICES

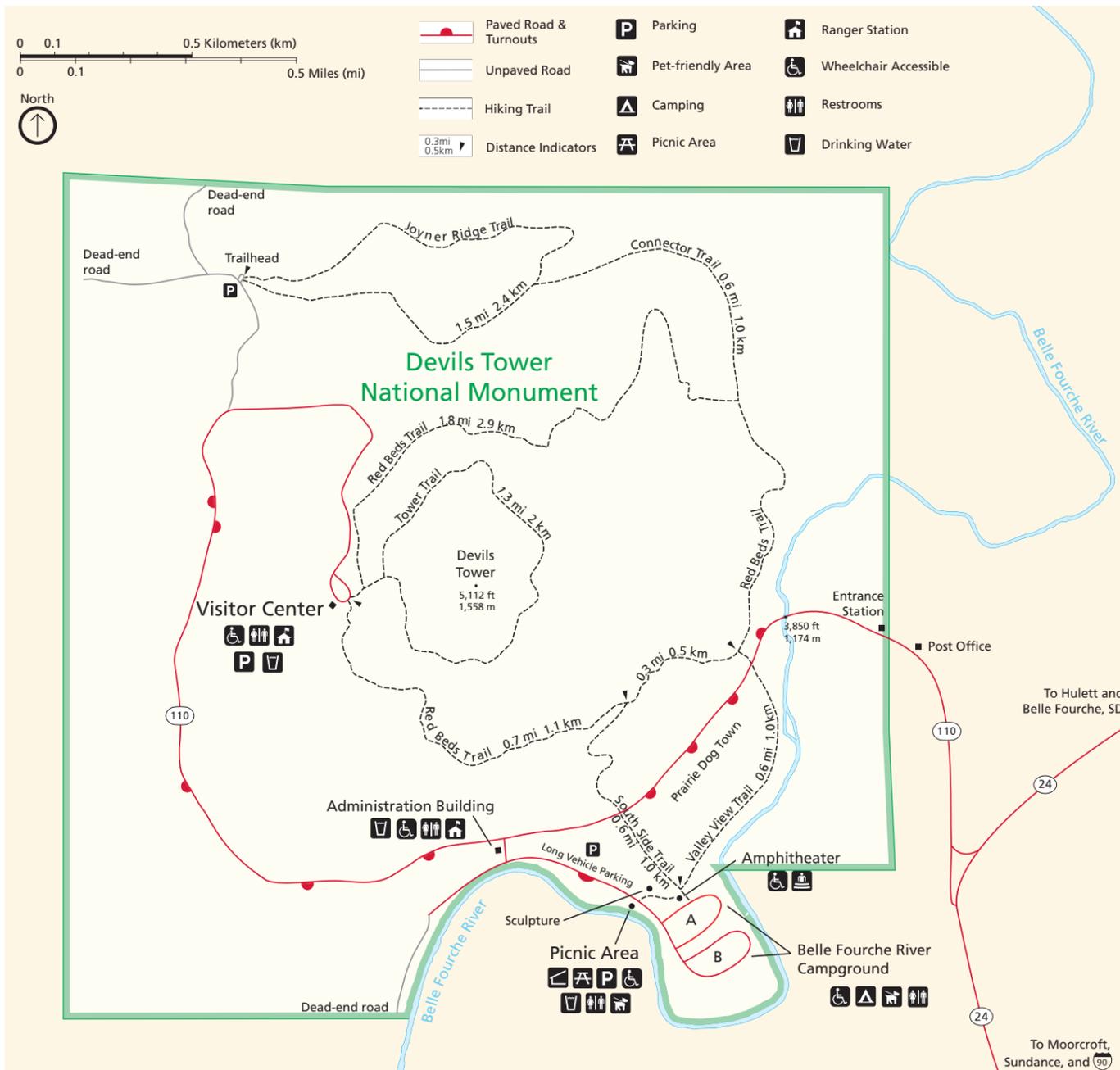
The visitor center is open daily from spring through fall; hours will vary through the season, with the longest hours from late May through early September. Inside you can find park staff, exhibits, and the park association's bookstore.

Ranger programs are offered throughout the summer. Check the visitor center for daily program listings. The back page of this newspaper also includes information about ranger programs.

Left: Diagram of main parking areas. Parking is often full in the summer from 11 am to 3 pm. Traffic flow is one way through parking lots.



Below: A view from Red Beds Trail in the fall.
NPS / Joe Bruce



Tower Trivia:

- The Tower is 867 feet (264 meters) tall from the visitor center to the summit
- The monument is 1,374 acres, or about 2.15 square miles
- This is the world's first national monument, dedicated September 24, 1906
- The park's visitor center was finished in 1935
- The Tower is made out of phonolite porphyry, a rare igneous rock
- The top of the Tower is about 1.25 acres and is covered in plants
- The park sees 500,000 visitors per year, most from May to September
- A 13-acre boulder field encircles the south and west face of the Tower
- There are 4,000-5,000 climbs of the Tower every year
- A technical rock climb to the summit of the Tower takes an average of 5 hours; times vary between 18 minutes and 16 hours!
- The first bridge across the river within the park was built in 1928, 22 years after we became a park!

How Did the Tower Form?

DEVILS TOWER IS A GEOLOGIC mystery. Although the main ideas are understood, there is still debate surrounding exactly how the Tower formed. People commonly ask, “Is it a volcano?” The simple answer is no; the longer answer is explained here!

One thing all geologists agree on is that the Tower is a rock. Specifically, it is an igneous rock. These rocks form from molten material. If it reaches the Earth’s surface, we call this molten rock lava. While underground, it is magma. Lava and magma form different types of igneous rocks. Most geologists agree that the rock of Devils Tower formed from magma. That magma pushed upwards through layers of sedimentary rock – such as shale,

sandstone, and limestone – to create the formation we see today.

When magma pushes through other rock layers (such as happened here), it is called an intrusion. These intrusions can alter the landscape on the surface by pushing other rocks upwards, or they may simply break through the rock layers leaving little evidence of their presence.

The intrusive magma cools into igneous rock and is much harder than the rock around it. As the softer rocks erode over time, the igneous rock becomes exposed. This is the likely process by which Devils Tower formed.

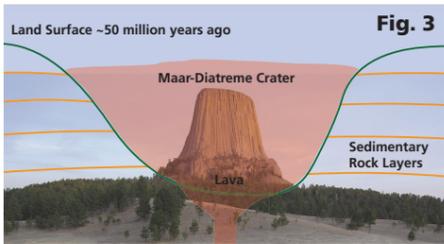
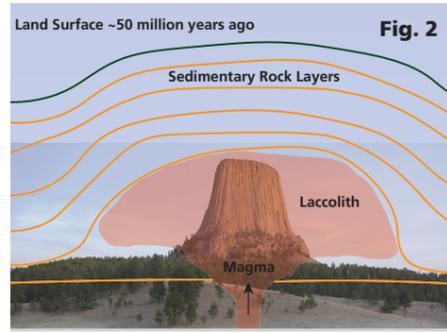
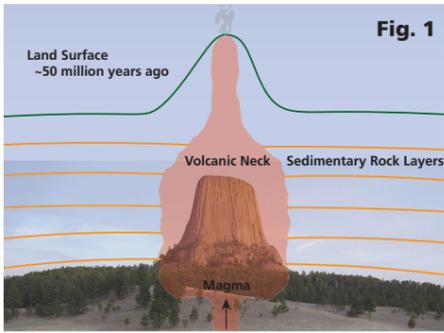
Early geologists assumed that the

Tower was the plug of an ancient volcano (Figure 1). That would mean the magma which pushed upwards was connected to a volcano on the surface above. Although that theory has not been disproved, other theories about the Tower’s formation have also been suggested.

Laccoliths are magma intrusions which cause an uplift in the landscape above, but remain buried. This is also a possible explanation for the Tower formation (Figure 2). Although they typically take a rounded or bulbous shape which the Tower does not have, several other laccoliths can be found along the northern edge of the Black Hills. Bear Butte outside of Sturgis, SD is a well-known example.

The Tower has also been compared to maar-diatreme volcano formations (Figure 3). These occur when magma encounters underground water. The rapid expansion of water to steam creates an explosion; the resulting crater fills with lava and leaves behind an igneous formation.

Regardless of the processes which formed Devils Tower, geologists concur that a significant amount of erosion has occurred since it formed. This erosion is why the Tower dominates the landscape today, and why its formation remains such a mystery: much of the evidence geologists rely on has been eroded away!



These diagrams represent three different ideas of how the Tower may have formed. (1) a volcanic neck or plug; (2) a laccolith intrusion; and (3) a maar-diatreme crater. The exact process which formed Devils Tower may remain a mystery for years to come.

NPS diagrams



Today Devils Tower rises over 1,200 feet above the Belle Fourche River Valley. The colorful rock layers below it are some of the sedimentary rocks created before the Tower formed. NPS

Columnar Jointing

ARGUABLY, THE MOST STRIKING feature of the Tower is the collection of massive vertical columns which comprise the formation. These columns appear as lines and grooves on the faces of Devils Tower. Although one may think that this appearance is due to the weathering of rock over time, the phenomenon of columnar jointing is actually one that occurs as the rock itself is forming. While other spectacular examples of these formations are found around the world, the columns at the Tower are unique.

The formation of columns in rock is known as columnar jointing. It only occurs in igneous rocks, as the shapes form during the cooling process. As molten rock cools it contracts. This contraction stresses the rock as it solidifies, causing it to pull itself in different directions. Stress points form and cracks radiate from those points. The shapes which form from these

cracks are typically hexagonal with some variation. The result is a complex, interlocking pattern of columns.

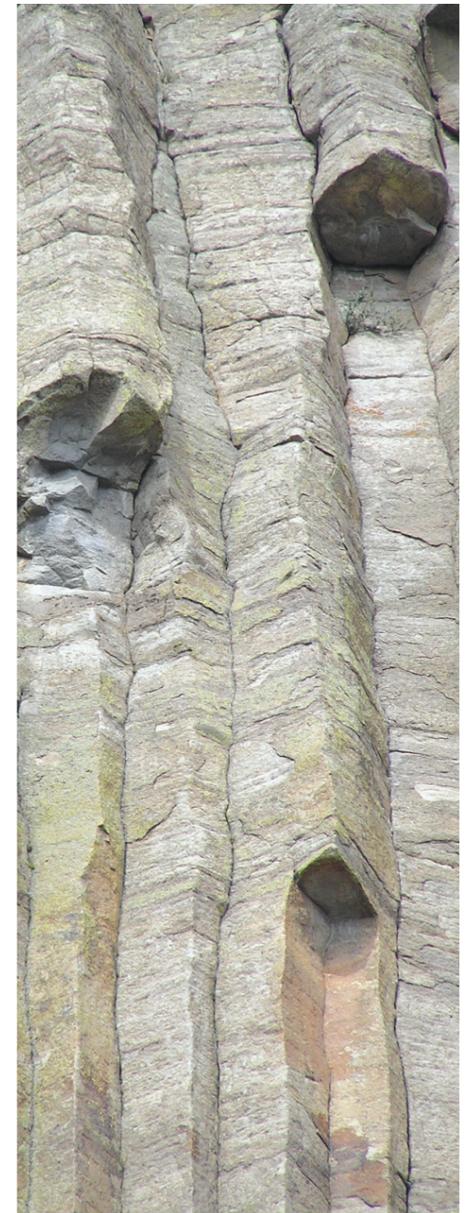
A common analog to this occurrence is drying mud. As the saturated earth dries, it begins to crack open. Polygon shapes appear as the mud hardens, leaving behind a geometric pattern in the cracked surface.

Columns are generally seen in extrusive rock, meaning it formed out of a lava flow on the Earth’s surface. The rock of Devils Tower, however, is intrusive: it formed from magma below the surface. One of the primary differences between magma and lava is the rate at which they cool. A slower rate of cooling results in larger columns.

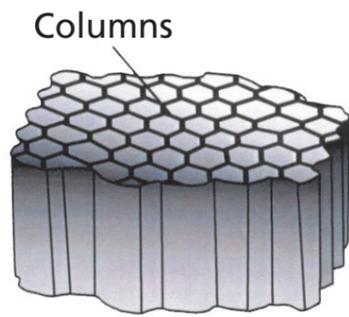
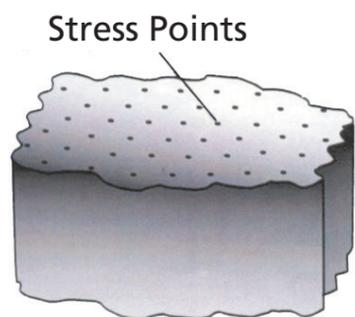
Other famous column formations, such as Devils Postpile National Monument in California and Giant’s Causeway in Northern Ireland, are extrusive rock

(basalt). The columns vary in size, but can be dozens of feet tall and over a foot wide. Since the columns of Devils Tower formed more slowly, they are ten times that size – hundreds of feet tall and 10-15 feet wide. Devils Tower boasts the largest columns in the world.

Since many column formations are made of basalt, early geologists assumed the Tower was as well. However, further study indicated this was not basalt. The rock of Devils Tower is actually phonolite porphyry, an intrusive rock which lacks the common mineral quartz.



Most columns are hexagonal (6-sided), but can vary from 3 to 8 sided shapes. NPS



The shapes you see today are a result of columnar jointing. As liquid magma cooled to solid rock, the columns of the Tower began to take form. The process is similar to drying mud.

How Often Do Columns Fall?

The exact date of the last major column fall is unknown. Small rocks, basketball size or smaller, do fall regularly.

Evidence of column fall is all around. Many of these pieces are heavily weathered or buried by soil, indicating they have been there for millennia. The boulder field at the base of the Tower is comprised of eroded pieces of the formation. No one in recorded history has seen one of those giant rocks fall from the Tower.

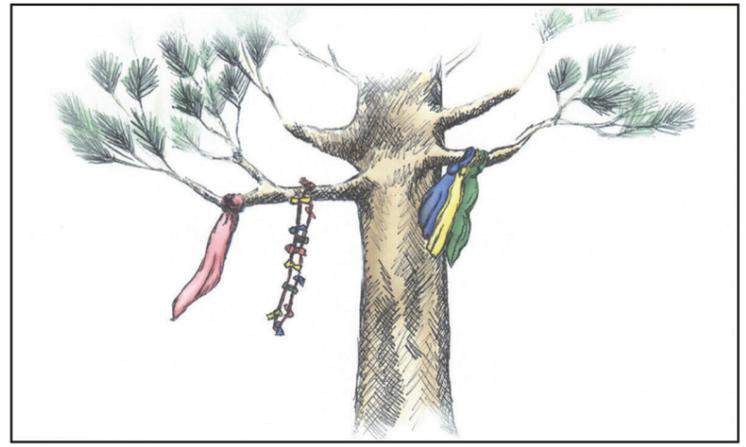
American Indians and the Tower Site

NATIVE AMERICANS ARE ACTIVE stakeholders in the use and management of Devils Tower National Monument. Archeological finds along the Belle Fourche River within the park confirm that humans were present in this area at least 10,000 years ago. The descendents of those people are known today as the Northern Plains Tribes. Over two dozen federally recognized tribes are associated with the Tower. Six nations are considered to have the most direct historic and geographic ties to the site: Arapaho, Cheyenne, Crow, Kiowa, Lakota, and Shoshone.

Much focus has been given to the oral histories these tribes have about their connections to the Tower. Words such as “myth” and “legend” are frequently

used to describe these stories, but the appropriate term is *sacred narrative* – stories which explain how the world and people came to be. Cultures throughout the world have sacred narratives and ascribe them great importance. We hold these stories in reverence, as they connect us to places, events, and our ancestors from whom they came.

The different tribes of the Tower each have their own oral histories about the site. These differences represent the diversity of cultures connected to the place. Common elements are shared between many oral histories, such as bears clawing into the Tower or a specific number of people in the story (seven is common and considered a sacred



Prayer bundles come in different styles and colors. The most common are red, yellow, white, black, blue and green. NPS image



Tribal representatives on the Tower Trail consulting with park staff about a trail improvement project. NPS / Nancy Stimson

number by some native cultures). The star knowledge of many tribes is connected to the Tower through these oral histories.

American Indian oral histories are only a part of tribal connections to the Tower site. In the simplest terms, this is viewed as a place where the physical and spiritual worlds connect. Native people visit this place not only to connect with their past, but to perpetuate their culture today and into the future. The summer solstice in mid-June is a common time for indigenous groups to practice their cultural traditions. Prayer and purification ceremonies, as well as other rites of passage, frequently occur here.

The most visible element of native connections to the Tower are prayer bundles. As you walk the trails of the park,

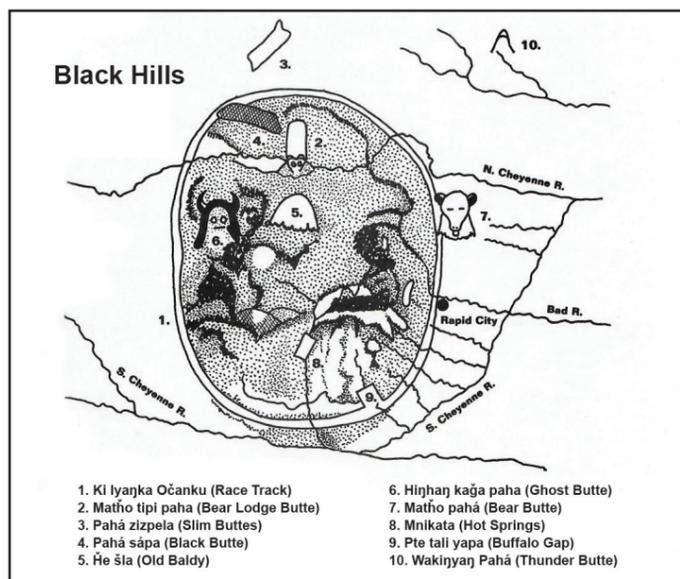
you may notice colorful cloths attached to the trees. These are offerings left by native people which represent prayers. The colors, placement, and contents have significance for the person who made them. Be respectful of these artifacts and do not disturb or photograph them. Do not leave other items behind, as prayer bundles are a part of the cultural landscape of this site.

The Tower is one of many places throughout the Black Hills and Northern Plains that has a cultural significance to native people. As you travel the region, reflect that you are moving through a landscape which has been home to people since time immemorial. Their descendents are still a part of that landscape today. Their presence here is a critical part of our history and modern society.

How the Tower Got Its Name

From “Bear Lodge” to “Devils Tower”

Place names are a reflection of culture. In the 1850s, the Lakotas were the dominant culture of the Black Hills. The first US government map of the area, drawn in 1857, named the Tower as “Bear Lodge.” This is an English translation of a Lakota name. Less than 20 years later, Lakotas and other indigenous cultures of the Black Hills were being removed by the United States. In 1875, US Army Colonel Richard Dodge escorted a geologic expedition into the Black Hills. The following year he published a book using his observations and journal entries from that trip. In it, he wrote that “the Indians call this place ‘bad god’s tower,’” which he modified into “Devil’s Tower.” Despite several maps and sources labeling the formation as Bear Lodge, the new name stuck.



This map is a reproduction of one drawn by Amos Bad Heart Bull, an Oglala Lakota historian, circa 1900. It shows the Black Hills and other locations throughout the region important to Lakota people, with the traditional names of those places. Bear Lodge Butte (#2), or Devils Tower, is shown in the northern part of the circle which encompasses the Black Hills.

© University of Nebraska Press

An Ongoing Controversy

Dodge’s journal entry seems to indicate a mistranslation. Some believe he simply invented a new name for the place. Historical precedent supports either theory: one can find examples around the world of place names changing, either intentionally or by mistake, when new cultures enter an area. Regardless, the name “Devils Tower” is one of great controversy. Many stakeholders, especially indigenous peoples, want the name changed; many others do not. The National Park Service has no authority to change the name of the formation or the park. Instead, we tell the story behind the name. How do you feel about the name “Devils Tower”? Explore the visitor center or talk with park staff to learn more about this story. It is a reflection of our history, of cultures colliding; the conversations we can have today about this issue are a reflection of our present and future.

Making a National Monument

Early Conservation

As European Americans pushed west and laid claim to their new country, advocates for preservation urged for protection of areas like Devils Tower. While much of the federal land was given or sold to railroads and settlers, areas which came to be known as national parks were kept for the public benefit. Although the early parks protected the country’s natural beauty, growing concern over the loss of cultural history led to the passing of the Antiquities Act of 1906.

The Antiquities Act was drafted to allow the president to declare “objects of historic or scientific interest... as national monuments.” A national park is created by Congress, and some feared that the legislative process would move too slowly to protect prehistoric sites like southwestern cliff dwellings. The Antiquities Act bypassed this process by granting the executive power to create national monuments. President Theodore Roosevelt, already an ardent conservationist, would go on to designate 18 national monuments in just over a year.

The First National Monument

The first of those monuments would be Devils Tower. Although not recognized as a cultural site at the time, Roosevelt’s proclamation hinged on the Tower as a place of “scientific interest” due to its unique geology. Some say President Roosevelt broadened the intent of the Antiquities Act with this first designation. The debate over a president’s authority to declare national monuments surfaced in subsequent administrations and continues today. Regardless, a precedent was set by Roosevelt and used to protect many areas for the public good. Some of the most famous national parks, such as Zion, Acadia, and Grand Canyon, started as national monuments.



Theodore Roosevelt was the 26th President of the United States. He protected over 200 million acres of public lands.

The creation of Devils Tower National Monument began years before the Antiquities Act and President Roosevelt. When Wyoming became a state in 1890, Senator Francis Warren attempted to create a national park to protect Devils Tower. Although his bill failed, the land around the Tower was kept as a federal forest reserve for over a decade. It was still under federal control in 1906, allowing for Wyoming Representative Frank Mondell to lobby the president to declare Devils Tower the first national monument. On September 24, 1906, President Roosevelt signed the proclamation protecting the Tower for generations to come.

Millions of people from around the world enjoy the legacy of preservation and conservation established in the United States. On your travels, consider how decisions made by previous generations have impacted your life; consider how your decisions will impact future generations.

Climbing

Climbing has always been a part of the national monument's history. It has been a source of challenge, inspiration, excitement, enjoyment, and controversy. Today the Tower is recognized as one of the world's premier climbing destinations.

CLIMBING HISTORY

The first known climbs of the Tower were done using wood pegs hammered into a crack in the rock. This wooden ladder was built in 1893 by Bill Rogers and Willard Ripley, ranchers and recent settlers to the area. First officially used on July 4 of that year, the stake ladder climb became the impetus for the Old Settlers' Picnic. The picnics became an annual gathering of the families who settled the region after the removal of indigenous people.



Remains of the stake ladder. NPS

The last recorded use of the ladder was in 1927 by Babe "The Human Fly" White. After many years of neglect, this artifact was restored by the park in 1972. A 200-foot long section can still be seen on the southeast face of the Tower today.

In 1937, Fritz Wiessner became the first to ascend Devils Tower using modern rock climbing techniques. He and two other men climbed the cracks of the Tower using only their hands and feet. With rope and a few pitons for protec-



A climber uses the stemming technique on the El Matador route of Devils Tower. NPS / Lucas Barth

tion, the trio proved that the formation was indeed climbable. By the 1980s, thousands were following Wiessner's example. Rock climbing was no longer an exception at Devils Tower; it was now a popular form of recreation.

MODERN ROCK CLIMBING

The majority of climbers today "free climb" the Tower, meaning climbing without the use of artificial aid, mechanical means, or ladders. They climb up by gripping onto features of the rock, such as cracks and edges. Climbers use precautions to protect themselves in the event of a fall, such as ropes, harnesses, and removable pieces of equipment placed in cracks in the rock.



The first rock climbers of Devils Tower: William House, Fritz Wiessner and Lawrence Coveny.

The first, or lead, climber places these temporary anchors while the second climber keeps the rope taut (a process known as *belaying*). If the lead climber falls, the belayer catches them with a friction device on the rope and they are held up by the equipment that they have placed. Once the leader has reached the end of the rope, they make an anchor and belay the second climber up. The second climber removes the anchors as they ascend.



Temporary anchors used by climbers are reliable and removable. NPS / Lucas Barth

CLIMBING MANAGEMENT

The park implemented a Climbing Management Plan in 1995. This plan strikes a balance between the cultural, natural, and recreational values of the Tower site. A voluntary closure to the area inside the Tower Trail occurs every June out of respect to American Indian cultural practices. Sections of the Tower are closed annually to protect nesting falcons. Climbers are restricted to temporary equipment, minimizing the long-term impacts climbing can have on natural features.

CLIMBING SAFETY

Climbing is dangerous. If you do not have the experience or equipment to rock climb, do not attempt to climb Devils Tower. Please talk with a ranger if you have questions about climbing in the park.

Devils Tower George

IN OCTOBER 1941, DURING THE international upheaval and strife of the Second World War, Devils Tower National Monument made headlines across the nation. A professional parachutist named George Hopkins was stuck atop the Tower with no way down.

Early in the morning on October 1, 1941, without the consent or knowledge of National Park Service officials, Hopkins parachuted from an airplane to the top of Devils Tower. He wanted to prove that a parachutist could land

precisely on a small target – the Tower summit being just over one acre in size. His plan was to descend using a 1,000-foot rope which would be dropped from the plane after him. Hopkins hit his mark, but his rope landed out of reach on the side of the Tower, leaving him stuck on top.

The National Park Service now had a problem to solve, and newspapers around the country ran with the story. While they considered options for rescuing the stranded man, airplanes dropped food, water, and warm clothing to keep Hopkins alive. Letters written by concerned citizens, corporations, and the military suggested innovative ideas for getting him down. These suggestions included everything from using a blimp to requesting the use of an experimental helicopter. Eventually they decided on sending a climbing team up to rescue Hopkins. Jack Durrance, one of the early technical climbers to scale the Tower, offered to lead a rescue party that included several famous climbers including Chappell Cranmer and Paul Petzoldt.

On October 5, Durrance and his party arrived at the monument. Working closely with the park service, they laid out a safe climbing route for rescue operations. On the following day, Durrance led the team to the summit of the Tower. They found Hopkins who, in spite of his ordeal, was in excellent

physical condition and in good spirits. The descent was made without major incident. The stranded parachutist and the rescue operations attracted many spectators: during the six-day period, some 7,000 visitors came to the monument to witness events first-hand.

George Hopkins' ill-fated jump onto Devils Tower has become a famous part of the park's history. Hopkins himself went on to train military personnel in the art of parachuting – likely with advice on how to make a backup plan!

Check out that climber!

Did you photograph any climbers today? Or did you climb and wonder if someone took your picture? Post your pictures of Devils Tower climbers to Instagram tagged with "#DevilsTowerClimbersMM/DD/YY" using the date you photographed!



George Hopkins is the only person to reach the summit of the Tower without climbing. NPS



Members of the rescue party in the visitor center planning their ascent the night before. Paul Petzoldt stands at far left; Jack Durrance leaning over at far right. NPS

Animals of Devils Tower

The national monument is only 2.15 square miles in area. However, it is home to a variety of animal life. Some of our residents are easy to spot, but many are elusive critters!

PRAIRIE DOGS

Black-tailed prairie dogs, the most common of the five prairie dog species, find a home in the valley below the Tower. Prairie dogs are burrowing squirrels that live in large colonies called towns. Their towns form



Prairie dogs have a complex communication system that involves vocal calls and amusing body language. NPS / Jonathan Malriat

extensive networks of tunnels beneath the prairie, and abandoned tunnels can provide habitat for other species. Named for their high-pitched bark, they communicate and work as a group to evade predators. With short, muscular legs and long-nailed toes on their feet, they are well equipped for their burrowing lifestyle.

Prairie dogs are a keystone species of their ecosystem. They provide a food source for almost every preda-

tor around: badgers, bobcats, coyotes, eagles, falcons, foxes, hawks, owls, snakes, and more all rely on these ground squirrels for food. Other animals, including mammals, birds, reptiles, and amphibians utilize the burrows for habitat. Deer are common in the dog town at the park; larger protected habitats like Wind Cave and Badlands National Parks see bison and elk frequent prairie dog towns to graze the nutrient-rich plants.

DEER

Visitors to the park can observe two distinct deer species: white-tailed and mule. The former are so named for their warning system, with a snow-white tail that stands erect as they sprint away from danger. The latter have a black tip on the end of their tail, as well as larger ears and a bouncing spring when moving quickly.

In summer, white-tailed deer have auburn colored fur, while mule deer maintain a light brown coat all year. The antlers of the two species grow differently as well. Mule deer antlers are bifurcated, meaning they fork multiple times and can have more points. White-tailed antlers grow from a single beam, with all points stemming from the main growth.

PEREGRINE FALCONS

The fastest animal in the world finds a home at Devils Tower. Actually, it finds a home *on* Devils Tower! Every year, peregrine falcons return to the Tower to establish a nesting site. This typically happens by early April. They enjoy the rocky outcrops on the Tower's sides, as well as the many small birds which roost and nest on the formation.



A mating pair of peregrine falcons soaring around the Tower. NPS / Lucas Barth

Peregrines can be seen at the Tower through August, soaring casually on the warm air currents – until they spot some unsuspecting prey! Their dives have been recorded at over 200 miles per hour as they careen downward into a mid-air collision. They train their young to hunt by dropping food from high altitude and allowing the juveniles to dive and catch. Not to be confused with the larger (and lazier) turkey vulture, peregrines have a high-pitched call you can hear along the Tower Trail.

BULLSNAKES

The most common snake species found here, bullsnares feed on rodents, birds, and even other snakes! They are known to eat or drive away the smaller prairie rattlesnake (the only venomous snake species in the Black Hills). If you see a snake along the Tower Trail during your visit, chances are it is a bullsnake. They can grow to over six feet long, and have a yellow color with brown mottling that turns to rings near the tail. Excellent climbers, bullsnares can be seen winding up trees to look for bird or squirrel nests.

OTHER CRITTERS

Many animals are not seen, but signs of their presence are everywhere. Porcupines leave chew marks on ponderosa pine trees. Badgers leave fresh dirt mounds from excavating prairie dog burrows. A fox print can be found along Red Beds Trail, or coyotes heard in early morning and late evening. This small protected habitat is just that: a tiny sanctuary for a complex ecosystem of interconnected animals.



Bullsnares are commonly seen along the Tower Trail in early summer. NPS / Joe Bruce

Protecting Bats

ACROSS THE UNITED STATES, BAT POPULATIONS HAVE BEEN IN DECLINE. Many bats in North America are insectivorous: they feed on insects. As bat numbers dwindle, insect pest populations (like mosquitoes) increase. This also impacts agriculture and the food we eat. Beyond the economic impact of disappearing bats, these animals are critical parts of their ecosystem. They also have some of the most amazing adaptations around.

Bats are dying from a disease called white-nose syndrome (WNS). The disease is caused by a fungus, which grows on the faces and wings of infected bats. It primarily affects cave-dwelling, insectivorous bats; the white fungus interrupts bat hibernation, causing the animals to burn through their stored energy when there is no food around to keep them alive. WNS was first discovered in New York state and has steadily spread across the country. Millions of bats have died, with some entire colonies being wiped out by this highly infectious disease.



A bat with WNS. NPS / Ryan Von Linden

With a mandate to protect our wildlife, the National Park Service has been at the forefront of combating WNS. Devils Tower National Monument has been studying bats within the park for several years. We have identified 11 bat species, including one heavily impacted by WNS and now listed as a threatened species: the northern long-eared bat.

Bats in the Black Hills region live differently than eastern bats; instead of huge colonies with thousands of bats living in caves or abandoned mines, western bats are also found in small numbers roosting in trees and rock crevices. This lifestyle may be one hope for bats at Devils Tower to avoid the devastating impacts of WNS. Concern over the disease's spread and the health of our bats remains high, and our staff works with other parks and agencies to monitor the animals.

A primary goal of bat research at Devils Tower is to learn where they roost, so we can protect those locations from disturbance and the spread of WNS. Park staff will live capture bats at night, document the specimen, attach a small radio transmitter and let the animal go. Since the transmitters are designed to fall off in a few

days, the "hunt" resumes the next morning. Using radio telemetry equipment and a little luck, we can find the bats' daytime roosts.

The park encourages our climbing community to report bat sightings. These reports help us learn where bats are roosting on the Tower itself. We also educate park visitors on preventing the spread of WNS. Although the disease is primarily spread from bat to bat, there is a chance the fungal spores can be spread by people via clothing or gear that has been used in a cave or other WNS-positive site. Like many diseases, stopping WNS is most easily done by preventing its spread.

Although some hold a negative stigma against bats, they are actually important creatures to the human world. They are a natural control of insect pests, from blood-sucking mosquitoes to crop-destroying moths and beetles. People may associate bats with rabies, but this is a rare disease in North America that is more common in other mammals (like dogs). Bats are one of the most diverse species of mammals, and the only type of mammal that can fly. Their echolocation abilities are studied to improve our inferior sonar technology. Without bats, the world would be a less healthy – and less interesting – place.



Scientists put a temporary radio transmitter on a bat caught in the park. NPS

Invasive Plants

Exotic species are organisms found outside of their native ranges. Exotic plants which grow or spread quickly, out-compete native plants, and alter ecosystems are referred to as *invasive*. These invasive plants disrupt natural food chains and become a nuisance for land managers attempting to preserve native ecosystems.

Exotic species are introduced by human activity, either intentionally or accidentally. Agricultural crops, landscape ornaments, international trade, and tourism are all vectors for exotic introduction. Once established, an invasive species out-competes native species, leading to losses of individual species or even entire habitats. More than sixty exotic plant species have been identified at Devils Tower National Monument. These invaders replace native plant communities and reduce the biological diversity of the monument's ecosystems. The park's most aggressive invasive plants are:

- Leafy spurge (*Euphorbia virgata*)
- Canada thistle (*Cirsium arvense*)
- Houndstongue (*Cynoglossum officinale*)
- Common mullein (*Verbascum thapsus*)



Left: A park employee sprays for leafy spurge in 1959. Right: Mullein grows thick in disturbed soils, such as after a fire. NPS photos



Houndstongue, like many invasives, is a toxic plant which wildlife and stock animals cannot eat. NPS

You can help control the spread of invasive plants by identifying exotic species and avoiding travel through infested areas. Clean vehicles, pets, clothing, and recreational equipment before leaving the area. Support the park's effort in controlling invasive plants by spreading the word, not the weeds!

Seasonal Plants

Did you know that fruits and flowers are adaptations to help plants survive? Scents and colors attract the animals necessary for that plant to reproduce. Flowers encourage pollinators like bees and butterflies to visit, while fruits encourage animals to consume that part of the plant and distribute the seeds within. Although we enjoy the beauty of flowering plants, what we really see is a clever way that plants use other organisms for their own benefit. Of course, that benefit is mutual – animals (including humans) get food via a plant's fruit and flowers, and they help ensure that those plants continue to provide food for future generations by playing a part in the plant's reproduction.

The table below lists a few common flowers you might see at the park. You can look these up yourself to confirm your sightings, or stop at the visitor center to see a guidebook with pictures.

Remember that all things in your national parks are protected. Leave flowers growing where you find them, and they will return for future generations to enjoy.

Seasonal Flowering Plants at Devils Tower			
Month	Color	Name	Location
April to May	Light purple	Pasqueflower	Tower Trail, Joyner Ridge Trail
May July to August	White Dark red or black berry	Chokecherry	Visitor center parking area
May to June September	Yellow Blue berry	Oregon grape	Tower Trail, park road
June to July	Orange	Scarlet globemallow	Prairie dog town
June to July	White	Sego lily	Joyner Ridge Trail
June to July	Yellow or orange	Prickly pear cactus	Red Beds Trail, prairie dog town
June to July	White	Yucca	Red Beds Trail, prairie dog town
June to September	Purple	Harebell	Tower Trail, Red Beds Trail

Prescribed Fire

AS YOU EXPLORE THE MONUMENT, YOU MAY NOTICE THAT SOME OF THE tree trunks are blackened. The black markings are the result of fire. In almost all cases, the fires at Devils Tower National Monument are started intentionally by park management. We call these intentional burns prescribed fires.

Fire, despite the instinctual fear, is a healthy part of the ecosystem. Ponderosa pine, the dominant tree in the park, needs fire for successful growth. Fire creates space and returns nutrients into the soil, both of which promote ecosystem health. The sap and thick bark of ponderosa trees make them fire resistant, and as the trees mature the lowest branches drop to prevent the fire from crowning.

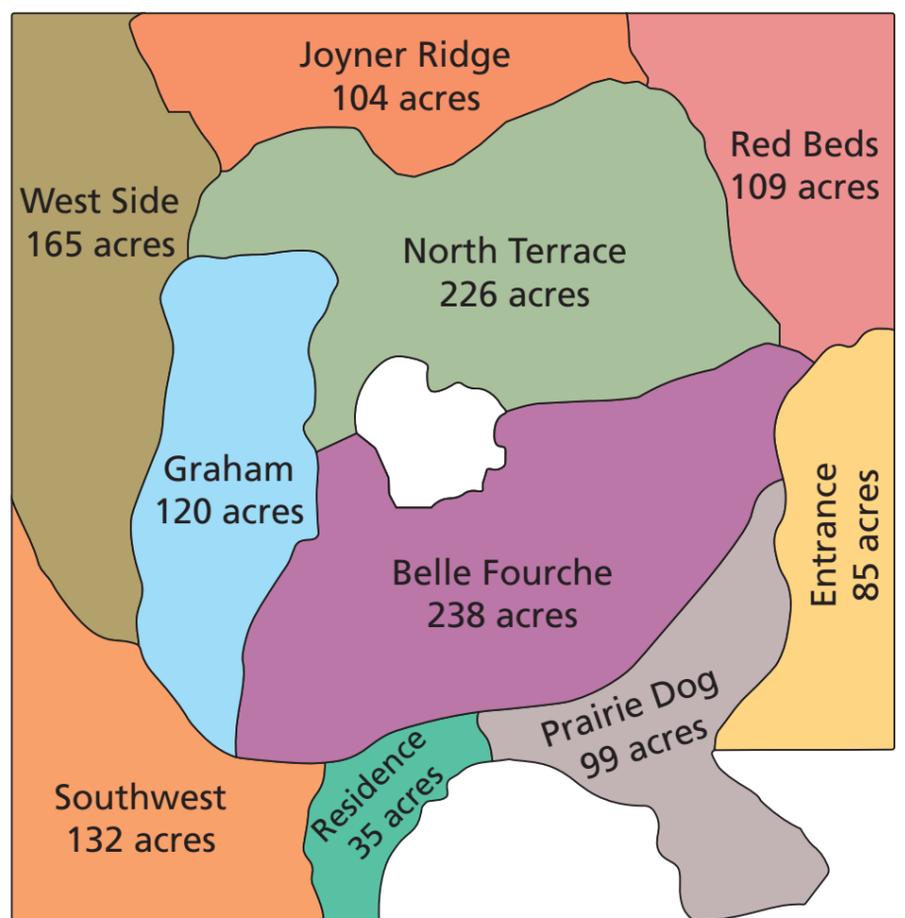
Animals like black-backed woodpeckers and northern long-eared bats take advantage of fresh burns to find food and shelter. In the weeks and months after a fire, deer and other grazers enjoy the abundance of fresh growth as plants sprout through the ashes.

For many decades fires were suppressed. This led to an overgrowth in forests and build up of fuels. These conditions lead to dangerous fires that burn hotter, longer, and over larger areas. In addition to the dangers to life and property, the health of ecosystems began to suffer. By the second half of the 1900s, it was realized that land managers can use fire as a tool.

To promote the benefits and to limit the negative effects of fire on the ecosystems, the National Park Service conducts prescribed fires at the Tower. These burns involve years of monitoring and planning. As a small park, we rely on staff from other state and federal agencies to help plan and execute prescribed burns. Many employees at Devils Tower are cross-trained to participate in prescribed fires.



A wildland firefighter monitors a section of a prescribed fire. NPS



Burn units of Devils Tower National Monument. Roads, trails, and rivers can all help establish and separate these units. A specific unit is typically burned every 15-20 years.

The park is divided into various “burn units,” and fire is introduced into a single unit at a time. Although we may do a prescribed burn every year, a specific unit is burned once every decade or two. This schedule closely reflects the cycle of wild-fires that would occur naturally from lightning strikes.

Look for evidence of these recent prescribed fires in the park:

- North Terrace, 2017 (northern sections of Tower and Red Beds Trails)
- Graham, 2016 (second half of park road and behind visitor center)
- Belle Fourche, 2013 (hill above prairie dog town and southern part of Tower Trail)

The Future of Your Park

There are big changes in the works for Devils Tower! For the past several years, the park has been planning major improvements to the visitor center, Tower Trail and parking areas. Many of these changes are targeted to address accessibility. People with mobility issues find it hard or impossible to explore the park visitor center and popular Tower Trail. People with hearing issues struggle to take in a ranger program amidst the noisy parking area. Our exhibits and waysides lack tactile and interactive elements for those with vision or cognitive issues.

Over the next few years, several outdoor plazas will be constructed to improve your experience. The approach to the Tower Trail will be graded and a new area for ranger programs will be built. New exhibits will be installed in the visitor center and new waysides along the Tower Trail. The flow of vehicle and pedestrian traffic will be improved for safety. Many of these projects are funded through the fee money you pay to visit Devils Tower National Monument.

Park Projects

Projects such as these involve a public comment period, where you can learn and comment about the park's plans. Check a park's website or search the internet for "park planning" to learn more.

Be A Junior Ranger

Devils Tower is one of hundreds of national park sites which have a Junior Ranger program. This family program will help you learn about the park and reward you with an official Junior Ranger badge! Stop at the visitor center and ask at the information desk for a booklet and pencil. When you finish, return with your book and park staff will check your answers and swear you in!

Instructions for earning your badge are in the Junior Ranger booklet. Complete the same number of activities as your age (in years!), up to a maximum of twelve. Prospective Junior Rangers need to be able to read and write to complete the booklet. We recommend ages 4 and up.



The Junior Ranger program at Devils Tower is extremely popular. Due to limited space in the visitor center, we encourage Junior Rangers to work on their booklets in an outdoor space. If you are part of a group earning badges, all members can turn in their booklets and be sworn in at the same time. During peak visitation, park staff may be available at the kiosk in the center of the parking area to swear in Junior Rangers and award badges.

Explore, learn, and protect your park by becoming the next Devils Tower Junior Ranger!

Ranger Programs and Park Events Information

Ranger programs are offered from Memorial Day through Labor Day. Programs are subject to change or cancellation. Call (307) 467-5283 x635 for information.

Daily Programs – Kiosk in main parking area

Tower Walk	10:00 am	A guided walk around the Tower Trail
Ranger Talk	Times vary	A 15-20 minute talk about the park. Check the visitor center for times and topics.

Evening Programs – Amphitheater near campground

Evening Program	8:30 pm	A 45-minute presentation at the park amphitheater. Check the visitor center for tonight's topic.
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Guest Speakers

Fridays and Saturdays	8:30 pm	Devils Tower National Monument hosts a special guest every week through the summer. Guest speakers present on Friday and Saturday night in the park amphitheater. Check the visitor center for topics and to verify time and location.
June through August		

Astronomy Programs and Special Events

Old Settlers' Picnic	June 23	This annual event is sponsored by Devils Tower Natural History Association. Join us in the picnic area for music, ice cream, and old stories!
Astronomy Programs	Times vary	Check the visitor center or park website for dates and times. Astronomy programs typically happen at Joyner Ridge.

Your Fee Dollars At Work

The fees you pay to enter and camp at Devils Tower National Monument directly support this park and others throughout the NPS. These fees are used to improve your experience as a visitor. They help pay for everything from park staff to rehabilitating facilities. Your support helps keep your park running, so take advantage of your investment! Attend a ranger program, use a restroom, or hike a trail – all of that and more is made possible through your fee dollars.

Over one hundred parks in the NPS collect entrance fees. Most parks keep 80 percent of the fees they collect. The remainder goes into a general fund that supports the hundreds of parks which do not charge an entrance fee. This means that all of your fee money supports your national parks!

Examples of Projects Funded with Fee Money:

- Hiring seasonal park staff
- Rehabilitating public restrooms
- Maintaining historic structures
- Construction of walkways and lighting near amphitheater
- Digitizing climbing route information
- Improvements to main parking areas
- New and enhanced signs within the park

From top left clockwise: A new walkway, barrier wall, and lighting built for the park amphitheater; education and action on invasive plant management within the park; comfort stations prior to renovations completed in 2018; rangers monitoring park resources.



NPS photos

Devils Tower Natural History Association

Our cooperating association is Devils Tower Natural History Association (DTNHA). Since 1958, this non-profit partner has helped to promote the understanding and conservation of the natural and cultural resources of the monument. DTNHA operates the bookstore inside of the park visitor center. The money you spend there directly supports park operations. Whether it is Junior Ranger supplies, supporting park volunteers or improving park facilities, the association helps fund critical projects and materials that directly benefit you, the visitor. Thank you DTNHA!



You can become a member of DTNHA today! Enjoy a 15% discount at our bookstore, as well as discounts at other park cooperating associations. Simply inquire at the register, or visit their website (www.devilstowernha.org) for more information. The DTNHA website also includes an online store with all their merchandise available for purchase.