



Foundation Document Overview

Jewel Cave National Monument

South Dakota



Contact Information

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Purpose



The purpose of JEWEL CAVE NATIONAL MONUMENT is to preserve, protect, and interpret one of the last great frontiers by managing and exploring an expansive cave system and the overlying surface for continued scientific and personal interest, and for inspiring public discovery.

Significance

Significance statements express why Jewel Cave National Monument resources and values are important enough to merit national park unit designation. Statements of significance describe why an area is important within a global, national, regional, and systemwide context. These statements are linked to the purpose of the park unit, and are supported by data, research, and consensus. Significance statements describe the distinctive nature of the park and inform management decisions, focusing efforts on preserving and protecting the most important resources and values of the park unit.

- Jewel Cave represents a pristine and relatively unchanged underground environment featuring subterranean lakes, unusual speleothems, and abundant calcite spar.
- The cave's extensive length, three-dimensional complexity, prominent barometric wind, and single natural entrance define its unique nature.
- Scientific research has shown that most of the cave is yet to be discovered, creating opportunities for exploration and new scientific knowledge.
- Jewel Cave National Monument provides important surface and subsurface habitat for wildlife and nine species of bats, including one of the largest known hibernacula for the Townsend's big-eared bat and the threatened Northern long-eared bat.



Fundamental Resources and Values

Fundamental resources and values are those features, systems, processes, experiences, stories, scenes, sounds, smells, or other attributes determined to merit primary consideration during planning and management processes because they are essential to achieving the purpose of the park and maintaining its significance.

- **Jewel Cave** – This includes the entire cave system and its features, including developed, undeveloped, and as yet undiscovered areas; the cave environment itself, including air flow, water flow, temperature, and scenery; subterranean lakes; and the overlying karst landscape and its geophysical features.
- **Opportunity for Exploration and Discovery in the Cave** – Providing opportunities to experience the cave and facilitates further discovery.
- **Opportunities for Scientific Research** – Scientific interest has influenced the development of the park. Long-term research datasets allow unique opportunities to monitor the condition of resources over time. Continued scientific research in the park increases the ability to understand, interpret, and protect the resources, and contributes to the broader fields of geoscience and climate change.
- **Natural Processes** – Natural conditions and processes prevail on the surface of the cave. Fire and wildlife are managed as lightly as possible while providing protection for cave resources, park staff, visitors, and facilities.

Jewel Cave National Monument contains other resources and values that may not be fundamental to the purpose and significance of the park, but are important to consider in management and planning decisions. These are referred to as other important resources and values.

- **Cultural Resources** – Resources including the historic ranger cabin, the historic cave entrance, the site of historic Jewel Cave Hotel, Mission 66 buildings, and archeological resources present in the park.
- **Night Sky** – Because of the park’s location in the Black Hills away from major sources of light pollution, the park is a place where visitors can experience exceptionally clear night skies.
- **Museum Collection** – The museum collection contains more than 13,000 items related to natural resources; early mining, development, and tourism; cave exploration, mapping and surveying; and the park’s history.

Interpretive Themes

Interpretive themes are often described as the key stories or concepts that visitors should understand after visiting a park—they define the most important ideas or concepts communicated to visitors about a park unit. Themes are derived from—and should reflect—park purpose, significance, resources, and values. The set of interpretive themes is complete when it provides the structure necessary for park staff to develop opportunities for visitors to explore and relate to all of the park significances and fundamental resources and values.

- Jewel Cave provides a portal into one of the last undisturbed worlds on Earth where curiosity and desire for new experiences can lead to adventure, learning, and personal achievement.
- Scientific research of the geologically young Jewel Cave continues to bring new insight and revelation while posing new questions after each discovery.
- Exploration in Jewel Cave reflects a long-standing and deeply seated human desire to venture beyond physical and intellectual frontiers.
- Immersion in the subtle beauty and mystery in the complex underground world of Jewel Cave can bring forth awe, wonder, fascination, and anticipation.
- The entwined natural resources of the park reveal connections and conditions that foster a deeper understanding and appreciation of the delicate relationship between surface and subsurface features.
- The park stands as a pristine island in the diverse, unique ecosystem of the Black Hills where east meets west and habitats remain intricately linked together.



Description

President Theodore Roosevelt established Jewel Cave National Monument by presidential proclamation on February 7, 1908. It was the first national monument established for the protection and preservation of a cave.

Jewel Cave National Monument is well known for its spectacular and unusual cave and karst features. Since 1959, cavers have made a concerted effort to map Jewel Cave and have discovered that it is among the longest cave systems in the world. Scientific studies indicate that the current exploration / cave survey represents only a fraction of what remains to be found. With an active exploration program, more than 175 miles of passages have been surveyed and mapped. More than 50% of the cave lies outside the surface boundaries of the park.

The earliest discovery of Jewel Cave was recorded in a mining claim filed in 1900. The claim described the entrance as a hole that was too small for human entry, with a blast of cold air coming out. After enlargement with dynamite, people entered the cave, discovering crawlways and low-ceilinged rooms coated with beautiful calcite crystals that sparkled like “jewels” in lantern light.

Most of the cave was formed by slowly circulating, acid-rich groundwater. Its unique story begins with the geologic history of the Black Hills. The oldest rocks in South Dakota’s Black Hills are Precambrian-era igneous and metamorphic rocks, which formed under heat and pressure more than two billion years ago. A variety of speleothems are found in the cave, including calcite crystals, calcite rafts, cave popcorn, dripstone, frostwork, gypsum formations, helictites, hydromagnesite balloons, and popcorn stalagmites. Boxwork and manganese are also present.

Many large animals move through the park from the surrounding Black Hills National Forest, including white-tailed and mule deer, bighorn sheep, elk, and mountain lions. The cave serves as the largest known bat hibernaculum (a winter roost for hibernation) in South Dakota and is the largest known hibernaculum in the world for Townsend’s big-eared bats and threatened Northern long-eared bats.

