



Jewel Cave National Monument

2023 Progress Report



WELCOME TO JEWEL CAVE

Thank you for the opportunity to present this 2023 Jewel Cave National Monument Progress Report to our team and our partner organizations. There have been many opportunities for challenge and change in the past two years and the staff has come together to embrace and succeed in overcoming them.

In 2022, the Monument's leadership team met to define a new vision and five year strategic plan. Our Vision Statement to "Maintain resource, ecological, and financial sustainability while ensuring staff are safe, valued, and have what they need to complete their assignments; to remain relevant through community and youth connections" is well underway. Our plan organized around Director Sam's seven priorities: 1) Connect and empower a thriving and diverse workforce. 2) Respect and strengthen Indigenous Connections, 3) Advance Diversity, Equality, Inclusion, and Access in carrying out the mission. 4) Invest in the future of the park, 5) Improve, streamline, and modernize NPS management and business practices, ensure accountability to ourselves our partners and the American People, 6) Create an NPS experience that meets visitor expectations into the future, and 7) Confront the Climate Crisis using Science and traditional Ecological knowledge.

Within these priorities, we laid out supporting and overarching mission criteria to define success. While we still have work to do; we have made progress to make the Jewel Cave National Monument a safe and special workplace through improving recruitment and retention efforts, attention to mental health and wellness awareness of the team, and ensuring housing is updated so that employees have comfortable accommodations to escape from the stress of the workday.

We continue to discover how large Jewel Cave is and to monitor its health through exploration, mapping, and science to determine our decisions to improve our sustainability efforts. To date, we have discovered over 217 miles of cave passages.

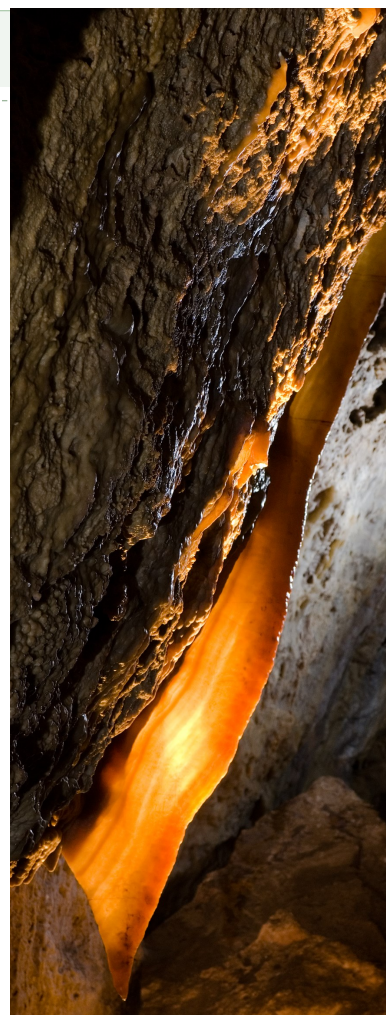
Collaborative relationships with our primary partners, Black Hills Parks and Forest Association and Black Hills National Forest have benefited the Monument in Resource Protection, Visitor Services, and Education Outreach. We look forward to beginning projects in Virtual Reality, Internships, and other Resource Management projects in the near future with these valued partners.

When you read this report as a Jewel Cave National Monument employee, one of our partners or member of the public, we hope you are pleased with the work that continues here. Our staff is understandably proud of the work they have accomplished and are committed to the future mission of the park and the National Park Service.

Thank you,

Kevin Tillman,
Superintendent

Jewel Cave National Monument
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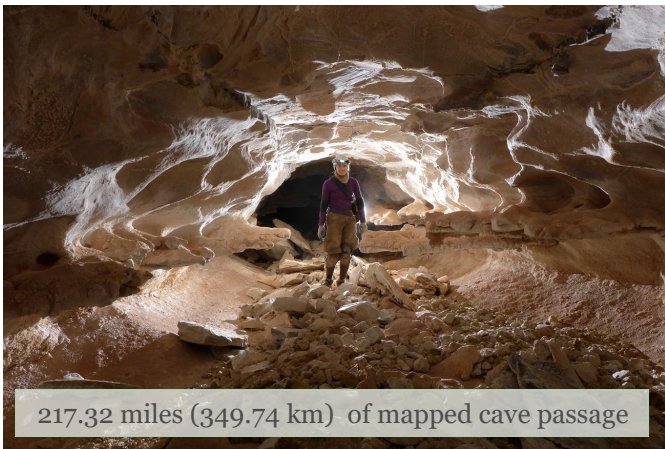
JEWEL CAVE AT A GLANCE



3,400 Junior Rangers



125,000 + visitors



217.32 miles (349.74 km) of mapped cave passage



2,513 Cave Tours



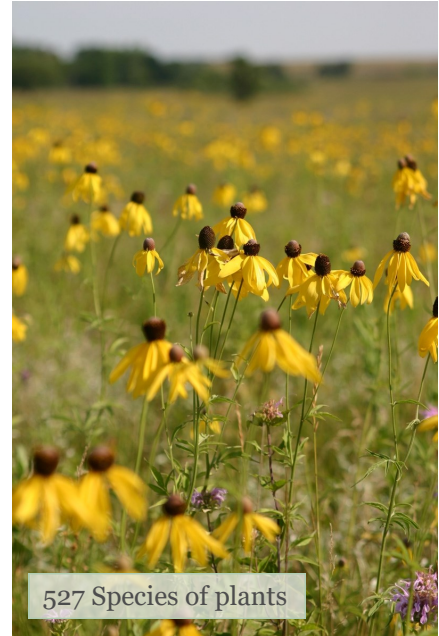
40 Employees



29 Volunteers



10 species of bats



527 Species of plants



ADMINISTRATION

The core of the National Park Service (NPS) is the employees, volunteers, and interns that are the face of the parks and the first people to greet visitors to their public lands. NPS relies on these people to ensure the preservation of public lands and to allow for the enjoyment, education, and inspiration of all who visit. This is only possible due to the teams that work behind the scenes to make the front-line jobs possible. From the creation of a job announcement to the employee's first day to their last day on duty and every day in between, the administration team of Jewel Cave is taking time to ensure things run as smoothly as possible for the 30+ paid employees at Jewel Cave.

This year, the Jewel Cave team focused on employee wellness. Part of this was creating a cyclic program to replace appliances in the park-provided housing. This year several appliances were installed in apartments to replace old and outdated appliances. Monthly employee gatherings were hosted at the Visitor Center to provide a chance to take a break from the daily workload and focus on mental well-being for staff. Park employees often live in the park and amenities are often limited, to combat this, a portable fire pit and a basketball hoop were purchased and got a lot of use through the summer season.

Not only does the Administrative team work to take care of park employees, they also take care of the budgeting and park planning. Part of that planning is to inventory and report what property is owned by the park. A large amount of old and unusable computers and other electronics were recycled in partnership with nearby Wind Cave National Park.

VISITOR AND RESOURCE PROTECTION

Jewel Cave welcomed H. Egan, a recent seasonal Law Enforcement Academy graduate of Colorado Northwestern Community College. Through the summer season, Egan assisted with:

- Over 100 reportable incidents
- Over 60 Cave Walk-outs or visitor assists
- Law Enforcement Operations at three neighboring National Park units for large events or situations (Wind Cave National Park, Mount Rushmore National Memorial, Devils Tower National Monument)

Jewel Cave values the safety, health, and wellness of people above all other consideration, and places the importance of safety related activities equal to the importance of activities that protect resources and serve visitors. The Safety, Health, and Wellness (SHW) Committee aims to advance sustainability in the park, ensure safe work conditions for all employees, and support employees to make healthy life choices. The SHW Committee met monthly through the summer and quarterly through the winter to assess conditions in various work environments, address any safety concerns that employees had, and to discuss employee wellness activities.

FEES

Jewel Cave National Monument does not charge an entrance fee. The grounds and Visitor Center are free to visit. However, fees are charged for all cave tours. A staff of one Career-Seasonal employee and 4 seasonal employees work under the Chief of Visitor and Resource Protection to operate the fee program at Jewel Cave. Since the beginning of January 2023, 21,081 tickets have been sold in person at Jewel Cave and 38,751 were sold through advance reservations on Recreation.gov, making a total of 59,832 cave tour tickets sold. After a long hiatus, Jewel Cave began issuing Interagency Passes again. Through the summer season, 121 Interagency Passes were issued, with the majority being Lifetime Senior Passes and Annual Passes.



The V&RP and Fees division took some time for a fun group photo to encourage employee wellness.

MAINTENANCE

Small but mighty! A maintenance team made up of 3 permanent staff and 2-3 seasonal staff provided the work to keep the monument beautiful and well-maintained. While our Facilities Manager has changed in the last two years, the monument has completed several projects and is in a good position to continue this good work.

Among the typical maintenance tasks, this team finished remodeling 3 apartments in shared housing. This was the final year of a multi-year project to remodel all 10 apartments in an apartment building shared with the US Forest Service. This project included replacing the flooring, installing noise reducing ceiling tiles, repairing and repainting walls, and replacing outdated appliances.

BY THE NUMBERS

6 paid staff	3 apartments remodeled
1 volunteer	7,510 pounds of materials recycled
30 volunteer hours	Over 80,000 visitors provided with clean drinking water
.5 miles of trail repaired	

With the help of a volunteer, the maintenance team also completed over half a mile of trail maintenance on one of the more used sections of trail in the park. One of the seasonal maintenance staff utilized their creativity while rehabilitating 4 park benches that needed refinished due to normal winter wear and tear. These benches have been popular among the visitors since being places around the Visitor Center.



One of four benches rehabbed and improved this summer.



Top picture shows the apartment prior to renovation project. Bottom picture shows the new flooring after the renovation.

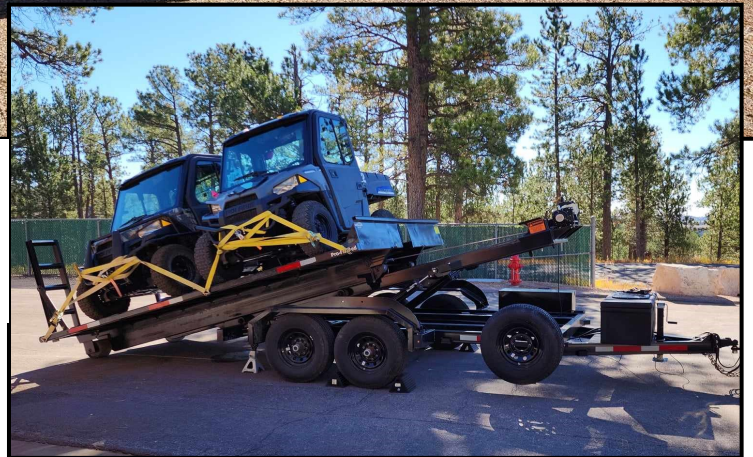


Trail maintenance included creating stops to prevent erosion along the trail.

Increasing our recycling program has been a priority at Jewel Cave. Through a National Park Foundation grant, the park was able to obtain a new trailer that could double our recycling ability and reduce our fleet from 4 trailers down to one. Another opportunity to “Reduce, Reuse, Recycle” came from a previous project that was completed in 2020. A temporary shelter was built near a secondary access point to the cave while a renovation project was being completed. The shelter was removed this year and materials were used to build an additional shelter for maintenance equipment. The rest of the materials were donated to Habitat for Humanity in Rapid City, SD.



One trailer can now be converted to haul any of the park recycling bins or equipment as needed.



This year Jewel Cave has recycled:

- 1,500 pounds of construction materials: lumber, OSB, trusses
- 150 pounds of batteries
- 1,440 pounds of Tin
- 34 cubic yards (1,040 pounds) of cardboard
- 3,380 pounds mixed recyclables (glass, plastic, and aluminum)

A temporary shelter was built in 2020 during the STEP (Scenic Tour Enhancement Project) and was removed this fall. Materials from this shelter were reused in the park or donated.

RESOURCE MANAGEMENT

Jewel Cave is already known as one of the longest caves in the world with over 217 miles of cave passage mapped; however, there is still much more left to discover. Teams of volunteer explorers will spend up to four days and three nights in the cave to survey new passageways. Nearly 2.3 miles of cave were mapped this year, with most of that occurring on a four-day camp trip in January 2023.

A year-long Scientist-In-Park Intern, J. Fox, started work at Jewel Cave in May and was focused on field geology through the summer season. Fox updated the geology map of Jewel Cave in GIS. This updated map will be used to better understand the mechanism of groundwater recharge and how it affects the cave lakes. The Resource Management team is developing a Cave Management Template to be used by the Midwest Region. This will be a guide on cave management for parks that have cave resources to protect, but the primary resource is not necessarily a cave.

Jewel Cave is home to ten species of bats. White-Nose Syndrome (WNS) was discovered in Jewel Cave in 2018 during a mid-winter bat count. After this discovery, mid-winter bat counts were discontinued until this year. As expected, the Little Brown bat population was hit the hardest over the last five years. Only 22 individuals were counted rather than the several hundred counted in previous years. A total of 570 bats were counted, a decrease of 863 bats from 2018.

On the surface, the park's vegetation management crew treated 100 acres of invasive plants through the summer with assistance from the park's facilities crew. These treatments included spraying herbicide and manual removal. One week of assistance was provided by a vegetation management crew from Wind Cave and the Montana Conservation Corp.



Volunteers surveyed 2.3 miles in Jewel Cave this year and spent a combined total of 552 hours in the cave.



SIP Intern Fox found fossils while mapping the geologic units of the surface above Jewel Cave.

INTERPRETATION

Over 125,000 visitors came to the visitor center in the past year. Of those visitors, about 56,000 were taken on at least one of the over 2,500 guided cave tours offered. These tours were led by a one of the 20 Interpretive division staff employed at Jewel Cave throughout the year. Many of these staff were seasonal, with only 2 permanent staff in the division. In the winter months, Interpretive staff provided 30 in-park education programs to over 800 students and 10 off-site education programs to over 300 students. These education programs were in-part funded by a \$11,000 grant awarded by the Open Outdoors for Kids (OOK) Program. These funds paid for a spring intern to help orchestrate the education programs and for buses to help schools bring their students to Jewel Cave. The park also participated in a multi-agency collaboration to bring students from Pine Ridge to the Black Hills area for a weekend event to experience the outdoors and recreational opportunities available in the Black Hills.

A Latino Heritage Internship Program (LHIP) participant, J. Garcia, worked at Jewel Cave through the summer season to assist with event planning and to engage with the community at various events and outreach opportunities as a representative of Jewel Cave. Garcia attended two large community events in Custer, SD, and engaged with over 500 people. Working with Jewel Cave's partner organization, Black Hills Parks & Forests Association (BHPFA), and the Interpretive staff at Jewel Cave, Garcia helped to plan and orchestrate a successful Junior Caver Day event with 200 attendees. This event utilized volunteers from the local Paha Sapa Grotto, Black Hills National Forest, BHPFA, and from Jewel Cave's volunteer program.

BY THE NUMBERS

16 Interpretive Staff
4 Local Volunteers
645 Volunteer Hours
125,000 visitors
2,500 cave tours
30 field trips
800 students



LHIP J. Garcia not only assisted with planning Junior Caver Day, he also planned special activities for participants, such as making bat kites.



The students from Pine Ridge stayed at a local camp during their weekend event to experience Jewel Cave and the Black Hills.



Park Superintendent, Kevin Tillman, joined the fun at Junior Caver Day to help swear in the newest group of Jewel Cave Junior Cavers!

Approximately 90% of the visitors to Jewel Cave arrive in the summer between May and September. The Visitor Center was open daily through this time and cave tours were offered at various times through the day, with tours offered every 20 minutes in the peak of the summer.

In the off-season, the Visitor Center hours are reduced. Late October through mid-May, the Visitor Center was open four days a week. Much of the visitation at this time was through field trips and other educational groups. Staff also used this shortened week to visit schools and offer in-school educational programs related to Jewel Cave and the geology of the Black Hills.

Staff attended several trade shows, job fairs, and festivals in the quieter winter months to advertise job openings at Jewel Cave, share what park rangers do in the NPS, and provide a chance for the community to talk with park officials and get questions answered in a conversation.



Our park partner, Black Hills Parks & Forests Association (BHPFA), supports Jewel Cave in a variety of ways to achieve their mission to support wonder and exploration through stewardship of public lands. BHPFA provides vital funding to support the Interpretation and Education program at Jewel Cave. This is used to provide Interpretive staff and volunteers, educational supplies, equipment, and literature, outdoor education programs, Ranger programs, and wildlife research.

While most visitor engagement at Jewel Cave occurs in the park, park staff took several opportunities to perform community outreach and to attend various job fairs and trade shows.

- Hill City High School Job Fair
- Custer Trade Show
- Crazy Horse University Job Fair
- Women in Science Festival
- Showing of the documentary “Ups and Downs of Herb and Jann Conn” at a local Custer event space
- South Dakota Tourism Conference
- Public Lands Alliance Conference
- “Coffee with a Ranger” – A event created in partnership with Custer County Library for the public to meet with the rangers of Jewel Cave in town rather than at the park.
- 4 Make-a-Wish kids and their families visited Jewel Cave and the Black Hills for their wish. These kids were taken on a tour and became Jewel Cave Junior Rangers while here.
- The Hot Springs Veterans Affairs program brought a group to Jewel Cave for a Scenic Tour
- Wounded Warriors Project partnered with Jewel Cave to take a group on a Discovery Tour

EDUCATION PROGRAMMING

In the 30 on-site education programs and 10 off-site education programs, the park reached over 300 students. The majority of these students were from the local Black Hills area; however, Jewel Cave has extended the education program with the help of the Open Out-Doors for Kids (OOK) Grant. Due to the success of this program, Jewel Cave received another OOK Grant for \$18,000 to be used in FY 2024. These funds will be used to provide funding for buses, an education intern, and giveaway products for students to take-home and continue their connection with Jewel Cave.

So far, schools have been reached in 10 different states and 19 different communities. The programs ranged in age from Kindergarten to college level classes. Some of these programs were virtual programs. These virtual programs reached students in Florida, Washington, Wyoming, and South Dakota.

Another expansion of the education program involved partnering with the Custer County Library. This partnership led to 3 programs hosted at the library and orchestrated by park staff that were geared towards home-schooled students. These programs were designed to engage students in fun activities that encouraging learning about park resources and the National Park Service.

JEWEL CAVE NATIONAL MONUMENT

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.

LOOKING FORWARD

Jewel Cave is always looking forward to continue our purpose of preserving the cave and interpreting the resources here. Some of the future goals of the monument include:

- Improve the park Volunteer program with the assistance of a Community Volunteer Ambassador (CVA) hired through Conservation Legacy.
- Develop and increase partnerships with U.S. Forest Service, Black Hills Parks and Forests Association, and other area organizations.
- Increase educational outreach to the diverse communities of people who surround the park.
- Continue to manage for employee wellness through support of an active and robust Safety and Wellness program.
- Trail improvement projects to make the Roof Trail more ADA accessible, along with the marketing of a new ADA compliant rugged chair that will be available for visitors to use during their visit.



Rangers Murillo, Basey, and Kane came out of the cave covered in manganese, but happy, after their orientation to the Wild Cave Tour route prior to training new staff on this extremely strenuous tour of the cave.