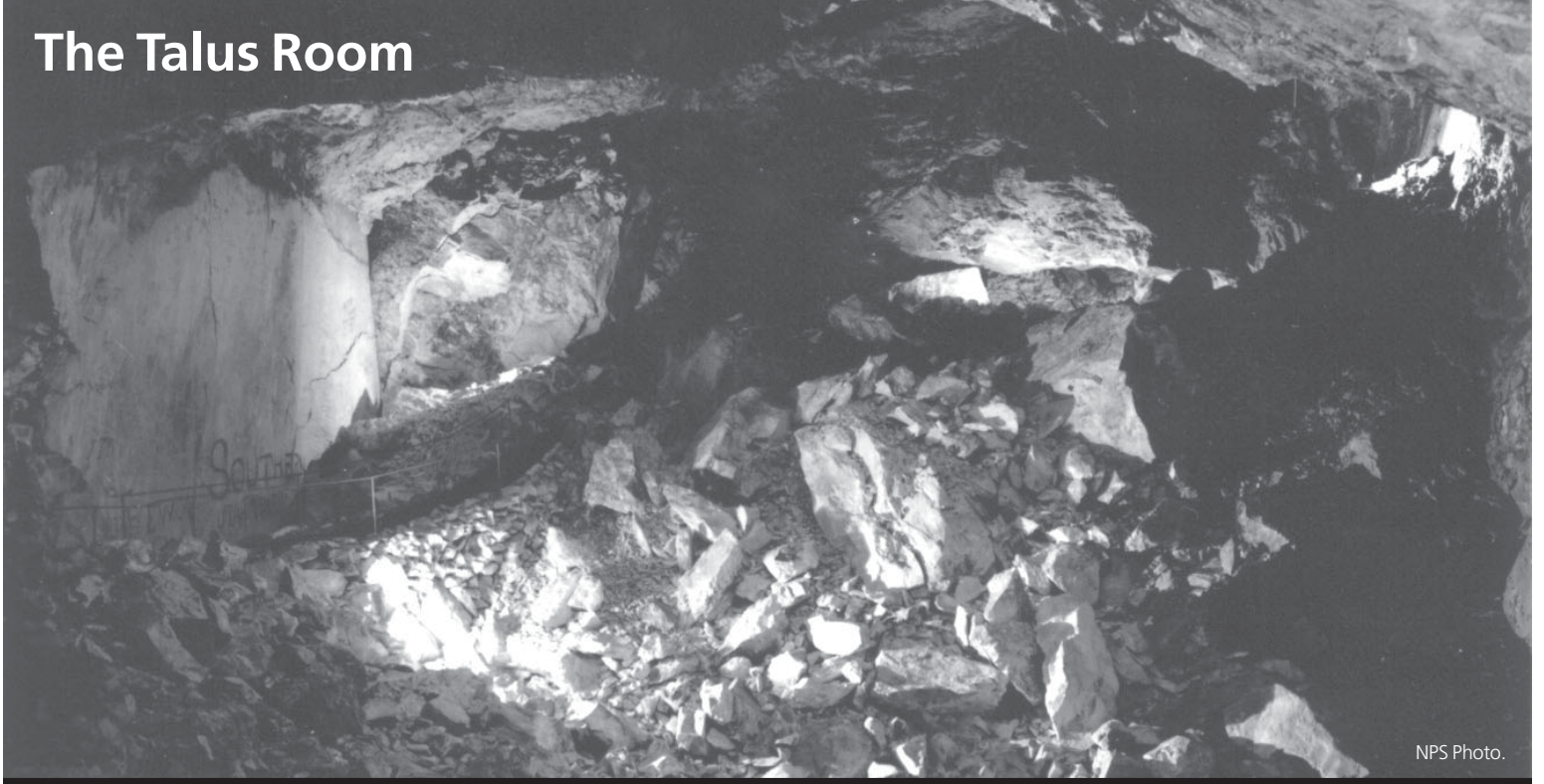




## The Talus Room



NPS Photo.

*In 1982, an area of Lehman Caves known as the Talus Room was deemed unstable, and tours through this section of the cave were halted. The Talus Room remains closed today, both for the safety of visitors and protection of the cave.*

### What Is The Talus Room?

The Talus Room is one of the largest rooms in Lehman Caves, measuring approximately 300 feet in length and 40 feet tall. The Talus Room gets its name from the large piles of broken rock, or talus, that cover its floor.

These piles accumulated as large sections of the cave's ceiling collapsed. Because of the collapsing, the Talus Room is void of the large decorations found throughout the other rooms and passageways of the cave.

### Closed For Your Safety

In 1981, park rangers reported that a rock mass above the trail had been showing signs of movement. The rock mass was closely monitored and showed three inches of movement that year. The United States Geological Survey (USGS) was then asked to evaluate the structural stability of the Talus Room. They concluded that the room was indeed unstable.

The USGS presented several options to the National Park Service, including stabilizing the rock mass and constructing a tunnel to bypass the area. Closing the room was

chosen as the best option, both for visitor and staff safety and for the protection of cave resources.

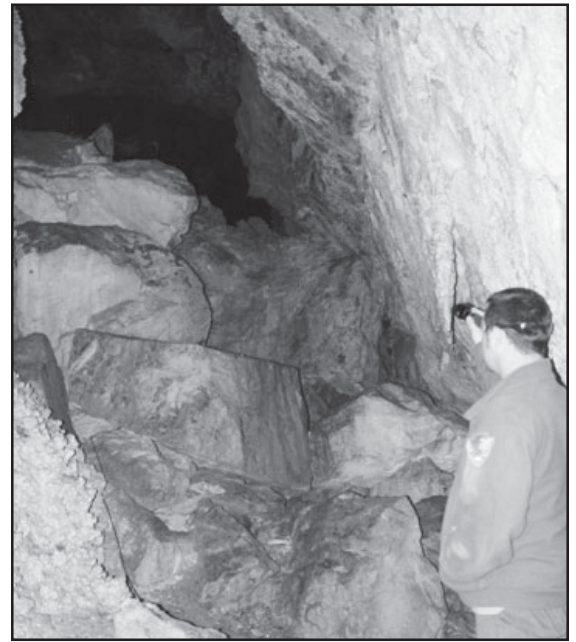
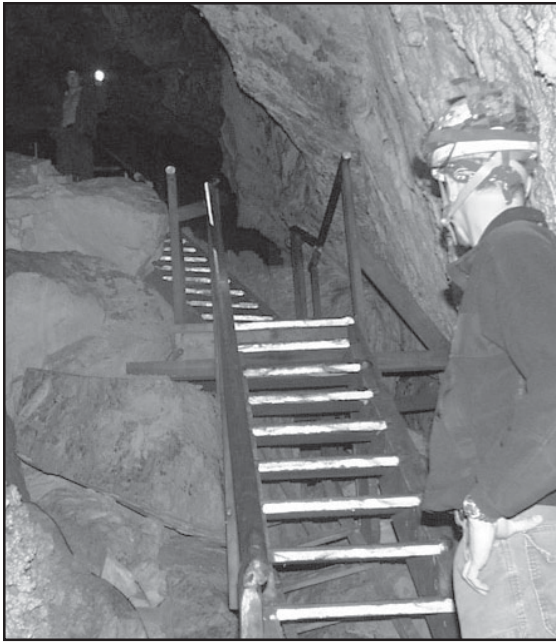
Though no massive boulders have come crashing down in the years since the closure, rock fall has been documented. In February, 2004, a rock the size of a helmet was found on the trail. With so many stable rooms and passageways, all dense with cave formations, it is simply not worth the risk to visitors and employees to take tours through the Talus Room.

### Why Is It Collapsing?

Several theories attempt to explain the collapsing of the Talus Room. One idea is that a fault line running through the room was the epicenter of a large earthquake thousands of years ago. This caused massive rock fall and destabilization of the room. Another theory states that in the earlier stages of cave formation, the faults and passages of this part of the cave were filled with water, and when the water eventually drained, the Talus Room ceiling lost support and began collapsing.

More studies must be done to determine the structural history of the room, but what is known is that the room is surrounded by highly fractured limestone and is not stable. The collapse of the ceiling is part of a natural process, and eventually, the room will reach a more stable structure, though this process will likely take thousands of years. At this point in time there are no plans to open the Talus Room.

## Removing Our Mark



After 52 years in the cave, these rotten wooden stairs were removed. They were a safety hazard to park staff and a breeding ground for non-native bacteria, microorganisms, and insects. NPS photos.

With the Talus Room closed, Great Basin National Park now has the opportunity to restore this large area of the cave to a near-natural state. Restoration, however, requires more than just turning out the lights.

The restoration process, initiated in 2003, involves removing all foreign materials that were introduced as part of the cave development. Examples of these are wooden staircases, metal handrails, cement pathways, and

electrical system components. These materials have affected both the cave's chemistry and its food web. For example, the electrical system, which corroded over time, allowed iron, aluminium, copper, tin, and lead to taint the surrounding cave environment. Iron oxides from rusting metal structures stained the surrounding bedrock and formations. Wooden staircases, exposed to the humid environment for decades, hosted non-native bacteria, fungi, and invertebrates.

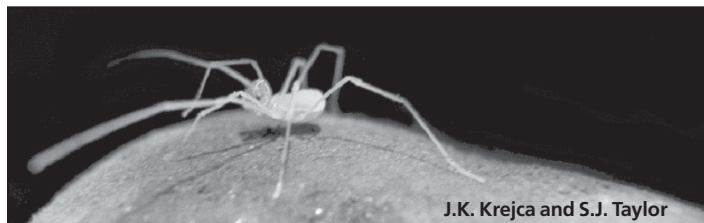
## Dark Zones

Previous to the Talus Room being closed, there was no major "dark zone" in Lehman Caves. Dark zones are important in developed caves, such as Lehman, because they provide an area for natural cave processes to continue in spite of the altered environment elsewhere in the cave. In the dark zone, the cave maintains its natural temperature and humidity, spared the heating and drying affects of lights. Algae, a common problem in developed caves, cannot grow in constant darkness.

Reduced human visitation also benefits the dark zone as even the most careful visitors to a cave bring in elements from the surface. Shoes are excellent transporters of soil and

seeds. Clothing sheds lint. Even skin cells, are left behind, adding foreign elements to the cave environment.

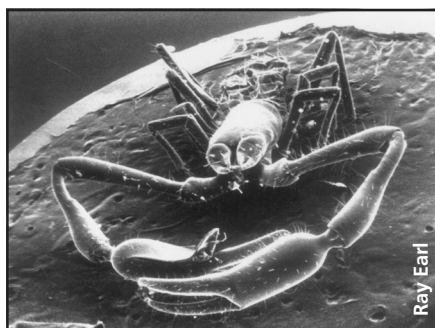
The National Park Service is entrusted with the unique responsibility of managing for native species and ecosystem integrity while providing for the enjoyment of these sensitive resources. With a dark zone established in Lehman Caves, this "dual mission" is possible. Visitors can safely enjoy the highly decorated rooms and passageways of the cave, while sensitive cave species can thrive as part of a native cave ecosystem in the Talus Room.



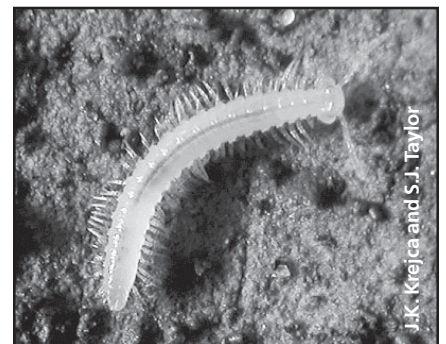
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J.K. Krejca and S.J. Taylor



Ray Earl



J.K. Krejca and S.J. Taylor

Caves are home to numerous specialized, and in many cases threatened, lifeforms. Clockwise from top left: harvestman (0.5"), milipede (1"), pseudo-scorpion (0.25"), and cave mite (0.1-0.2").