

KINGSTON SALTPETER CAVE NATURE PRESERVE

INTRODUCTION

The Kingston Saltpeter Cave Nature Preserve, located in Bartow County, Georgia, is composed of forty acres of largely hardwood forest. The property is dominated by an isolated ridge of the Knox Dolomite, trending southwest to northeast. The two entrances to the cave are located on this knob at an elevation of 910 ft.

The cave has long been an over-used and abused cave, regarded by most serious cavers as not being worth the time to visit. However, in 1980 three members of the National Speleological Society (NSS) initiated a scientific and historical study of the cave, obtaining status as an official Study Project of the NSS. As the study progressed the value of the cave became apparent and it was determined that the cave warranted protection from the continuing vandalism. Following meetings with the owner of the property, the Georgia Kraft Company, and locating an entity to accept ownership of the cave with the goal of providing protection, title of the property was transferred in 1983 to the Felburn Foundation. Shortly thereafter, an agreement for protection and maintenance of the cave and surrounding property was signed between the Felburn Foundation and the National Speleological Society, stating the following:

- The Owner desires the aid of the Society in the preservation of the formations, animal life, and other natural resources within the cave and on the property from destruction by trespassers and other unauthorized persons.
- The Owner desires the assistance of the Society in the exploration, survey, and study of the cave.
- The Society desires to study the cave for scientific and historic purposes and to investigate the geologic formations, animal and plant life, and artifacts without being hampered by the presence of unauthorized persons.

During the ensuing years the cave has been gated and barriers installed on the road at the edge of the property with funds provided by the Foundation. A large volume of trash and much of the spray paint has been removed from the walls, with some areas left untouched due to there being historic inscriptions underneath. With the greatly-decreased amount of visits to the cave by uncaring persons, the cave has been allowed to rejuvenate itself, and bats have returned. On the surface, tree plantings have been made to prevent further erosion and restore the property. The preserve has been officially enrolled in Georgia's Acres for Wildlife program, showing our continuing desire to protect the land over and around the cave as well.

The property surrounding the Preserve, a tract consisting of approximately 1500 acres, is owned by the Emcomos family. They purchased the property in 2017 for the purpose of hunting, but they have also fenced in an area for raising cattle. The family owns Eagle Rock Distributing Company, a

wholesale beer distributor located in Norcross, Georgia, and they employ a full time caretaker for their property. That their property totally surrounds our tract, and the fact that we have developed a good relationship with them, serves to provide additional security for our Preserve.

The property is administered by a permanent committee set up by the NSS. The Chairman is approved by the Board of Governors of the NSS, and he as well as all members of the committee must be NSS members. No sport caving is allowed, but authorized persons can be granted access for educational and research purposes, or to further public relations goals.

RESOURCES

GEOLOGICAL

The cave is formed in the Knox Dolomite of Ordovician and Cambrian age. The Knox is a massively-bedded, partially crystalline grey magnesian limestone containing few fossils, although algal stromatolites are found in the ceiling of the Devil's Dungeon. Brecciation is common in the Knox and is exhibited along the northwestern wall in the Test Pit Room. Two joint sets are evident in the cave, and these have controlled the direction of the major passages. The first trends approximately northeast and controls the passage from the main entrance to Blair's Saltpeter Corridor as well as the Natural Bridge entrance and the complex of passages leading toward the Cable Climb. A second set runs northwestward, and delineates the Ballroom, Rimstone Rockway, and the main room of the cave.

The main entrance to the cave collapsed pre-Pleistocene, forming a ramp of breakdown rock 180 feet long at an average angle of 27°. The smaller, Natural Bridge entrance has not been open as long, having been dug open from what had previously been a small aperture about 12" in diameter by saltpeter miners in the 1860s to provide a quicker and easier haul for the nitrous earth from the south end of the cave.

At one time speleothems were present in the cave in abundance but mining and vandalism have taken their toll and now few are to be found. One large stalagmite, dubbed the Nitre District No. 14 Pillar, continues to form in the Big Room. A column about eight feet in height and resembling a bowling pin can be seen just inside the small entrance, along with a few smaller formations, but that formation has been heavily vandalized with spray paint. In small alcoves and in the small passage into the Bat Room one can find short soda straws and helictites. Coralloids, nodular speleothems often referred to as "popcorn," are found in a few areas of the cave. Interbedded in the Knox Dolomite is a rock of pure silica called tripoli, and samples can be found strewn about the floor in the Big Room where blasting had taken place during the saltpeter mining.

Water is found only intermittently in the cave, in a couple of ephemeral pools. Water has been known to rise in the Ballroom, covering the floor several inches deep. At some times during the year water rises in the Water Hole nearly to the top, but drains out completely to enable a climb down to a clogged, muddy passage that at one time reportedly led quite some distance to the Etowah River, a claim seemingly credible. Some drip water is present, notably in the vicinity of the Bat Room.

At the far southern end of the property is a small sink, dubbed "Cedar Hole," where collapse into a chamber below is apparently taking place. This karst feature was included in the acquisition of the property because it could lead into the main cave in the event of either further collapse or excavation.

BIOLOGICAL

Due to intense saltpeter mining at the cave during the nineteenth century and over-visitation and the abuse after that and until we acquired and gated the cave, the cave does not have much in the way of fauna. Nineteenth century newspaper accounts of the cave told of the many bats in the cave, but now there are few to be seen. The most prominent during bat counts in recent years when the population has been estimated at a hundred is the tricolored bat (*Perimyotis subflavus*), mainly found in the Bat Room and the Devil's Dungeon. Occasional sightings of the little brown bat (*Myotis lucifugus*) and the big brown bat (*Eptesicus fuscus*) are sometimes made, the latter seen hanging in the higher areas such as the Ballroom. A colony of the southeastern myotis (*Myotis austroriparius*) can sometimes be seen during the summer in an alcove in the Test Pit Room.

A subspecies of millipede found in the cave is *Scoterpes austrinus nudus*. Kingston Saltpeter Cave is the type location for this subspecies discovered in the cave in 1946.

Two unidentified species of mushrooms are sometimes present growing on old wood in the Devil's Dungeon and along the north wall immediately inside the small entrance.

PALEONTOLOGICAL

It was due to the discovery of an important paleontological site that led to the protection of Kingston Saltpeter Cave. Although in 1964 an elk bone was discovered in the cave - Georgia's first record for elk as well as a range extension for that animal – it wasn't until 1980 that a Pleistocene deposit was unearthed, which would prove to be the most important in upland Georgia,

The deposit yielded the remains of 164 taxa, including 21 fish, 43 herps, 41 mammals, 43 birds, and at least 16 invertebrates. Several of these taxa, such as the jaguar, peccary, mastodon and passenger pigeon, are extinct, while others are extralimital, their present-day ranges far from Georgia, including the prairie chicken, magpie, and southern bog lemming. The cave has also provided several first records for Georgia in addition to the aforementioned elk, including mink, Eastern cottontail, heather vole, and star-nosed mole. Radiocarbon dates of 12,470 +/- 50 ybp and 12,790 +/- ybp have been obtained.

The fossil material is deposited at the McClung Museum, University of Tennessee, Knoxville, Tennessee.

ARCHAEOLOGICAL

Very little of archaeological importance has been found in the cave due to the saltpeter mining activity. Several points and performs, showing usage of the cave beginning in Archaic time and progressing through the Woodland, have been discovered, as well as two grinding stones. No ceramics are present. Two human teeth and a humerus have been found, but not in association with each other. A panel of petroglyphs, covering an area of several square feet, has avoided vandalism due to its obscure location. Although studied by archaeologists in-situ and by photographs, nothing definitive has been learned as to their age.

HISTORICAL

Saltpeter Mining

Mining at Kingston Saltpeter Cave began as early as 1804, by a William Nicholson who rented the cave from the Native Americans for a price of two hundred pounds of powder annually. By 1809 the mining operation had come under the ownership of a William Reed, who lived close to the cave at that time, but due to an altercation that resulted in a murder his operation ceased about a year later. Although there are no extant records of mining during the War of 1812, there is evidence that suggests that some use of the cave was made for that purpose then, as well as intermittently during the mid-1800s. It was in support of the Confederate cause, though, that the cave gained its greatest fame.

There were many saltpeter caves located throughout the South during the Civil War, principally in the Virginias, Kentucky, Tennessee, and Alabama. While some of the operations were larger than that at Kingston, the fact that this cave was situated so far south contributed to its importance, as it was still in operation long after others had been destroyed by the Union forces. A report dated July 31, 1862 stated that in the spring of that year all important

saltpeter caves in the country, except for the one in Bartow County, were in Federal hands.

Referenced at the time as "Bartow Cave," "Bartow Saltpeter Works," or simply "Saltpeter Cave," the cave was producing saltpeter at the time hostilities began, but at a quantity deemed too low. Consequently, on June 14, 1862 the Confederate government seized the property, and production at the cave increased. Army conscripts and slaves were utilized for labor, as many as 233 shown for one month.

On May 17, 1864 General William T. Sherman noted in his personal narrative that "... [General] McPherson...was about five miles to my right rear, near the 'nitre caves'...". Then, early on the morning of May 19th, the saltpeter operation having been deserted by the workers, Federal troops converged on the cave. Brigadier General Kenner Garrard wrote that "the works at Saltpeter Cave are extensive and in good running condition." The works were destroyed by his troops the following day. Three days later a soldier in the 4th Army Corps would write in his diary, "We pass[ed] the smoking ruins of an old powder mill, which has been used for the manufacture of that article."

Today the cave stands in mute testimony to its part in the war. With the production facilities having been located on the surface outside of the cave rather than within the cave as they were at many other sites, all vestiges of that industry are now gone; what wasn't either destroyed in place or carted off by the Union troops has since rotted away. Piles of leached tailings are yet visible a short distance from the cave's mouth. Inside, nearly every area of the cave was worked for the nitrous earth and evidence is even now apparent. Indication of the cave's original floor level, which had been lowered in many places by digging, can still be seen. Passages and rooms that have been dug out; pick marks in the cave earth; tally marks on the walls, recording quantities of earth removed; large piles of "sift stones" that remained after mining; drill marks in rocks from the use of explosives; and several torch fragments all attest to the former mining activity in the cave. One remaining cast iron kettle from the cave, whose provenance has been established, is on display in nearby Euharlee.

Local tradition holds that before they left the cave workers hid tools, weapons and ammunition in a passage in the cave and blasted the passage shut. Extensive searching for such a place within the cave by this writer and others has been unsuccessful.

Inscriptions

Several hundred inscriptions, dating to 1805, have been recorded from the walls and ceilings of the cave, attesting to visitation of the cave for over two hundred years. Many of these inscriptions are by people who were notable in the area. Spray paint and soot have covered

many more, and removal of the former would result in damage to the inscriptions; some soot has been successfully removed to reveal old, pre-war inscriptions.

Commercialization

As evidenced by the inscriptions, the cave has seen many visits over the years. Some of the visits have been recorded in various newspapers, giving insight into the trips themselves as well as to the cave as it was both before and following the intense saltpeter mining. Into the twentieth century visits continued, as the cave became the scene of frequent picnics and social activity. In 1935 the cave was developed as a dancing venue, with wooden stairs leading down into the cave to a wooden dance floor in the Ballroom, where a trio played music for the dances. Trips were led through the cave for a small fee, wooden stairs being constructed at places to facilitate safe movement. People came to the cave from miles around, arriving on foot, by horseback or buggy. Some would travel by train to the nearby whistle-stop named Cave on the W&A railroad. Part of the cave was illuminated at this time by a Delco battery system. This activity only lasted about two years, after which the stairs and other improvements were quickly vandalized and perished with the ravages of time.

For detailed information about the cave, consult the following:

Sneed, Joel M. and Larry O. Blair. 2005. The Late Pleistocene Record of Kingston Saltpeter Cave

Sneed, Joel M. 2007. Bartow County Caves: History Underground in North Georgia