

# Protecting Privately Owned Caves

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## **Abstract**

The protection of cave resources involves many facets of a community including federal, state, and local agencies and private landowners. The Nature Conservancy of Tennessee—as a private, non-profit organization—has the unique opportunity to work closely with many private landowners of biologically significant caves. Often, building relationships with private landowners can be a delicate process requiring both patience and attention. This slide show presentation will attempt to describe our tools and methods for constructing valuable partnerships with private cave owners with the goal of protecting their resources. The presentation will outline the steps from data collection to landowner contact and education and will provide several specific case studies that have resulted in the successful protection of a privately owned cave. In addition, an emphasis will be put on the need to cooperate with many other partners such as university experts, federal and state agencies, and local caving grottos in order to gather information critical to protection decisions.

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## **Tennessee Caves Initiative**

In 1995 The Nature Conservancy of Tennessee hosted a meeting to discuss the status of biologically significant caves in the state. Present were representatives from more than 12 public and private agencies and organizations, including the National Speleological Society, the U.S. Fish and Wildlife Service, and local university experts. Essentially, the goal of this meeting was to develop a list of caves for which protection efforts were needed.

Known biologically-rich caves were prioritized by the species present in the cave and the threats to the system. For example, a heavily-visited cave containing a threatened species would receive a higher rating than a cave containing the same species but being more remote in location and infrequently visited.

From this meeting, a list of the “Top 100” biologically significant Tennessee caves was created. Using this list as a starting point, the Tennessee Caves Initiative was formed to begin the task of bringing protection efforts to these important caves.

Most of the biologically significant cave systems in Tennessee are on privately owned land, presenting an array of unique challenges. The Nature Conservancy as an organization is well suited to this task, having accomplished many of our successes throughout the past 50 years with private landowners. These successes are mainly due to a long-standing policy of working only with willing landowners.

## **Steps Toward Protection**

### ***Initial Contact***

The natural first step toward the protection of a cave is initiating contact with the landowner. While a letter or a phone call are obvious methods, perhaps the best solution is enlisting the help of someone who already knows the person. Experience shows that landowners are much more comfortable when being introduced by someone with whom they are familiar. Neighbors, local cavers, or even other researchers can be invaluable in this capacity and can ease a new relationship.

### ***Site Visit***

The first visit to a site is an excellent chance to ask questions of a landowner. At this time, one can learn what the person knows about the cave (historical or biological facts) and what sorts of problems they might have encountered while owning the cave. By talking with the landowner, one can also get a sense of their general interest in the cave and its worthiness or unworthiness to them and their family.

### ***Provide Information***

It is essential to provide landowners with information about caves in general and the specific species that reside in caves. The Nature Conservancy of Tennessee’s Cave Program has developed several materials used for this purpose, including a cave pamphlet and a biannual newsletter. The cave pamphlet outlines the

importance of caves as unique ecosystems, species that live in Tennessee's caves, and threats to cave systems. Our newsletter gives information about the Cave Program's activities and upcoming projects, and also gives the landowner information about The Nature Conservancy. In addition, books such as *Bats of the United States* (Harvey, Altenbach, and Best, 1999) are appreciated by landowners, giving them a chance to see photos and read about bats that might be living in their caves.

## **Tools For Protection**

### ***Cooperative Management Agreement***

Before any work is started on the ground at a site, a Cooperative Management Agreement is developed between the landowner, The Nature Conservancy of Tennessee, and usually other partners such as the U.S. Fish and Wildlife Service, Tennessee Wildlife Resources Agency, or a local caving grotto. This is a non-legally-binding document that outlines the protection targets at the cave, protection strategies and options for the site, and the responsibilities of the various partners. Partnerships are essential for cave conservation, facilitating funding, exchange of ideas, law enforcement capabilities, research and data sharing, management help, and labor for large projects like cave gates. Partners may include local, state, and federal agencies; caving organizations; local caving grottos; and local university experts.

### ***Informational Signs and Periodic Clean-ups***

Erecting informational signs at an important cave can be an effective tool in dissuading negative visitation. Such signs should go beyond the simple "no trespassing" statement and include reasons for a closure period, including a description of the species residing in the cave that are the protection targets. Many people will respect a sign if they understand the reasons for limited access to a cave.

Conducting periodic clean-ups at a cave has several benefits. For caves with unrestricted access, periodic clean-ups are one way to gauge negative visitation to the site. In addition, these projects often provide an opportunity to involve partners and volunteer groups. Perhaps the most important reason for these projects is that they show landowners a commitment to protecting their caves.

### ***Sinkhole Fences and Cave Gates***

When passive protection efforts fail in preventing vandalism and destruction of cave resources, more extreme methods are sometimes

employed in the form of entrance barriers. While these projects are expensive, labor intensive, and occasionally unpopular, cave gates and sinkhole fences can be effective at controlling access at biologically important caves. It must be remembered, however, that such structures must be carefully and correctly designed to accomplish two goals; first to accommodate the species living in the cave and secondly to prevent unauthorized and inappropriate entry.

Beyond access control, cave gate projects serve other important functions. These projects provide an opportunity to share management of an important cave with local caving grottos, thus enhancing valuable partnerships. Bringing together volunteers from many walks of life for such projects is another way to nurture partnerships. Often a local community will aid in the construction of a cave gate either through direct labor, donations of drinks and snacks, or by providing equipment such as bulldozers. Inclusion in such important projects can invoke a sense of pride in the community surrounding the cave, which in turn can help with the ongoing protection efforts. Cave gating projects also provide excellent opportunities to spread the message of cave conservation, both in a local community and throughout the state by inviting local and regional media.

### ***Long Term Protection***

Long term protection is the key to cave conservation. Although the Cooperative Management Agreement is an effective tool to begin protection efforts, it is not permanent. This puts caves at risk when a land ownership or family situation changes. Therefore, it is important that other methods be considered and utilized if possible.

Conservation easements can offer an effective long-term protection solution. Since an easement will attach to a property deed, development and other restrictions may be passed along from landowner to landowner. One drawback to conservation easements is that since they generally restrict development and subdivision, they devalue the property.

The best long-term solution is to deliver an important property into the hands of an organization or agency whose only goal is to protect the resource. Land donation does occur, but more often the only option is fundraising to acquire a property. Partnerships between private organizations and public agencies are critical to this process. Fundraising is difficult and, for larger properties, raising acquisition dollars may be too challenging for a single organiza-

tion. Therefore, finding partners willing to help is a necessity.

### **Cave Protection In Tennessee**

The following case studies describe just a few of the projects in which The Nature Conservancy of Tennessee's Cave Program has been involved.

#### ***Holly Creek Cave Preserve***

Hound Dog Drop Cave in Wayne County, Tennessee, has been known for several years to be a summer roost site for the federally endangered gray bat (*Myotis grisescens*) as well as a site for the southern cavefish (*Typhlichthys subterraneus*), a threatened species in Tennessee.

Conservationists discovered that the cave and surrounding property had recently been purchased by Forest Systems, Inc., a lumber company. This company was approached by The Nature Conservancy of Tennessee through a letter describing the cave and its importance. Forest Systems, Inc. responded and requested that The Nature Conservancy meet with them at the cave, as they were unaware of its location on the property.

After visiting the site and talking with a regional manager with the company, they decided that they would like to protect the site. They agreed that they would work with The Nature Conservancy's Cave Program to construct a management plan for the protection of the cave and its resources. However, their true wish was that this property be in the hands of someone more familiar with caves and their management. At this point, The Nature Conservancy contacted the Southeastern Cave Conservancy, Inc. and asked if there was any interest in acquiring this cave. Luckily, they were willing to take on the project.

Forest Systems, Inc. was unable to donate the property; but was willing to sell it at a reasonable price to the Southeastern Cave Conservancy, Inc. Through a generous grant from the Wallace Research Foundation, The Nature Conservancy of Tennessee was able to fund the purchase of this cave. Along with Hound Dog Drop Cave, several other caves and about 15 acres were purchased by the Southeastern Cave Conservancy, Inc. and named the Holly Creek Preserve.

As a result of the cooperative spirit between several concerned groups, this important cave can now receive the protection necessary for the survival of both rare species in the cave. In addition, there will now be opportunities to

further study the cave and any fauna yet to be discovered there.

#### ***Caney Hollow Cave***

Caney Hollow Cave in Franklin County, Tennessee, is another gray bat (*Myotis grisescens*) summer roost site. This cave was included in the "Top 100" list, but the landowners had not been approached by The Nature Conservancy of Tennessee. A Cooperative Management Agreement had existed between the Tennessee Wildlife Resources Agency and the previous landowners, but the old agreement lapsed when the property changed hands.

A biologist who was friends with the neighbors was able to talk to the landowners about the cave and advised a The Nature Conservancy staff member to pay them a visit. On the first site visit, The Nature Conservancy staff was able to visit the cave and spend some time with the landowners talking about their cave, the bats, and The Nature Conservancy's Cave Program. Information about caves and bats was left with them as well as a draft copy of a Cooperative Management Agreement. Luckily, the landowners had a good sense of the value of the cave and were happy to work with The Nature Conservancy to protect it.

In the following months, a Cooperative Management Agreement was signed and discussions about protection and problems at the cave continued. A The Nature Conservancy staff member was able to visit the landowners several more times and brought informational signs to erect at the various entrances to the cave. In the spring, before the bats arrived, a small group of volunteers conducted a clean-up of the cave.

During the summer, another biologist and a The Nature Conservancy staff member visited the landowners and brought them to the cave one evening to watch the emergence of more than 4,000 bats from the cave. This was a wonderful chance to show them first hand what they were helping to protect. They were delighted and have since taken many of their friends to the cave on summer evenings to watch their bats. Their pride in the cave and the life within has blossomed into a deep concern for all caves and bats in Tennessee.

#### ***New Mammoth Cave***

The federally endangered Indiana bat (*Myotis sodalis*) once numbered in the thousands at New Mammoth Cave in Campbell County, Tennessee. Unfortunately, this cave and the bats have suffered tremendous and sometimes malicious vandalism over the years, leaving the numbers only in the hundreds.

The Nature Conservancy of Tennessee and the U.S. Fish and Wildlife Service, along with other partners, first began a relationship with the landowner of this cave nearly ten years ago when the first of three gates was constructed at the entrance. When this gate was breached and more vandalism occurred, a second gate was built. Eventually, the newer gate was also breached and stood open for some time.

In the winter of 2001, the landowner was re-contacted by The Nature Conservancy of Tennessee after years of silence. This was due in part to staff changes at The Nature Conservancy and the fact that there was no one in the office whose time could be completely devoted to cave issues. A The Nature Conservancy staff member spoke with the landowner about renewing our partnership with him and our commitment to the protection of New Mammoth Cave. Luckily, he was still very cooperative and interested in making another attempt to protect the bats. Plans were made to construct another gate, fashioned from much heavier steel and a more contemporary design, in the summer of 2001. Along with reinforcing the defense of the site, our other goal was to show to the landowner a recommitment to our partnership.

Through this project the East Tennessee Grotto, which had provided much volunteer work at the gating, stepped forward to offer their help in managing the cave. As well as easing the landowner's burden of managing access, a regular presence at the cave by grotto members will hopefully deter vandalism. It is our hope that this long-standing partnership with the landowner of this cave will continue for many more years.

Working with private landowners to protect important caves can be a long process of building trust and relationships and can lead to significant results. The Nature Conservancy of Tennessee's Cave Program has seen many successes over a decade of cave conservation. It should be noted, however, that none of these successes would have been possible without the help and support the many partners and volunteers who bring a dedication to the protection of one of Tennessee's finest resources, its caves.

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