

# American Caves



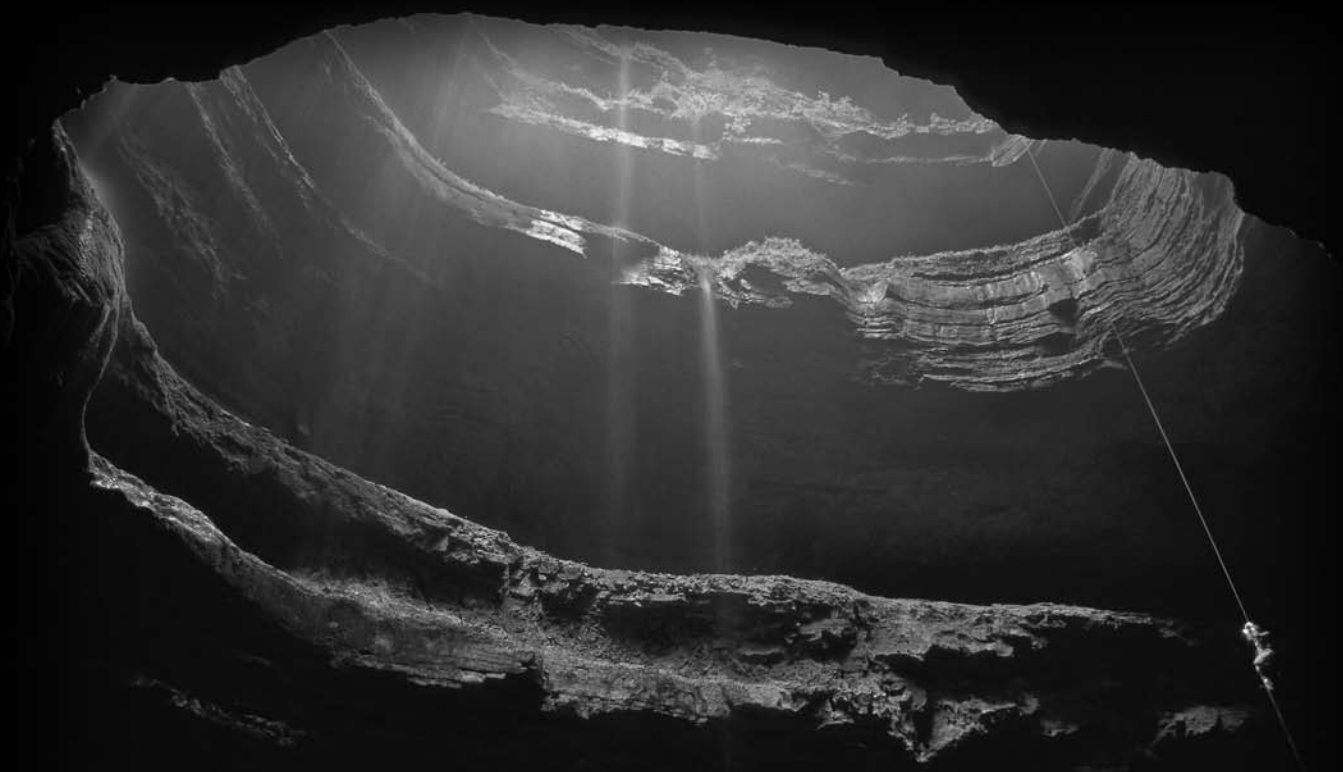
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**American Cave Conservation Association**

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Spring 2006



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## **American Caves**

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## From the Director

### *Time To Grow*

Dear ACCA Member:

I would like to use my column this issue to ask you, our loyal members, for your help. The ACCA needs to grow in order to survive. We have around 500 members including many of the most dedicated cave conservationists in America. I couldn't ask for a better group of people to work with but we desperately need to find a way to get our message out to more people and grow the organization.

With that in mind, in 2006 we are going to focus substantial effort on membership development. This will include some very unique volunteer projects as well as outreach visits from our staff to various cave events and meetings.

My staff and I are willing to do the heavy lifting but here is what we need from you. First of all, think about volunteering to let others know about us. If you would be willing to set up a booth at a local environmental fair or provide a program at a caving or conservation club meeting, we will provide you with the program materials and free handouts.

Secondly, tell your friends about us. If every member just gets one more person to join, we would double our membership this year. By helping us grow the membership, you will accomplish the following things.

1. ACCA will become a more powerful voice for conservation. There is strength in numbers!
2. ACCA's financial situation will improve. This will let us support more conservation projects.
3. Volunteerism is its own reward. By playing a more active role in the ACCA, you will discover the joys of accomplishing real benefits towards the cave resources that you care so much about.

So please, make a New Year's resolution to step up and help ACCA become a better organization. Its easy to procrastinate. It is difficult to take action and make a difference, but when it comes down to it, all great accomplishments start out as one person with an inspired thought.

We have 500 members and from that solid base, I believe that we can grow the ACCA substantially and change the world 500 times over. I pledge that my staff and I will greet your ideas and enthusiasm with open arms. So this year, please make yourself a vow to help the caves that you love so much by donating some time to help the ACCA grow.

Cheers,



David G. Foster  
Executive Director

# ACCA News



ACCA

ACCA

## American Cave and Karst Center Restoration Begins

Under the supervision of Contractor Tim Peters, the \$3 million dollar renovation of the American Cave and Karst Center has begun. Work started in the Fall of 2005 will continue through most of 2006. The American Cave Museum will remain open throughout the construction period.

The project consists of renovating two historic buildings which lie adjacent to the building that currently

houses the American Cave Museum. These buildings will be completely rehabilitated and will then be connected with the current museum to provide substantially larger lobby and giftshop area, more room for cave exhibits, space for a library and theatre, and additional staff and storage areas. The project is being funded by grants from the Community Development Block Grant program, the Federal Transportation Enhancement Act, HUD Special Projects funding earmarked by Senator McConnell, the James Graham Brown Foundation and numerous contributions by ACCA members and supporters.

The upper two stories of a third building located on Cave Street in Horse Cave was demolished because the



ACCA

*Above and below left: Construction crews work to remove the upper floors of a condemned building at the edge of the Hidden River Cave entrance sink. A street level terrace will be constructed in the building's imprint to provide views of the cave entrance.*

*Inset: Contractor Sydney Bunnell, a Cave City resident and long-time ACCA member took charge of the dangerous demolition work required to remove the upper floors of the Cave Street building on the back side of the Hidden River Cave entrance sink.*



ACCA Director Dave Foster and local Karst Center Board Members David Houk and Jim Sturgeon look at construction plans while some of the demolition work is in progress.

building was unstable. The basement of this building borders the eastern edge of the Hidden River Cave entrance sink. The imprint of the building, including the underlying rock work and basement floor will remain in place and a viewing terrace will be constructed where the upper floors of the building once stood. This terrace will provide a back entrance to the Museum Center.

The exterior work, as of January 2006, is 90 percent complete. Bids for interior renovation are being considered in February with construction continuing throughout the Spring and early Summer. According to ACCA Director, Dave Foster, "we are hoping that the construc-

tion will be far enough along that we will be able to open parts of the new museum by late this summer."

## deSaussure Library Donation Appraised

The library of the late Ray deSaussure was donated to ACCA by Ray and Barbara deSaussure. ACCA Director Tom Aley is currently storing the library until it can be moved to the American Cave and Karst Center once the renovation is complete. Emily Davis of Speleobooks has conducted an appraisal of the library. A total of 2013 books and publications were donated with an appraised value of \$96,758.50. Included in the library are numerous international publications on karst hydrology, paleontology, biology and caves in general, as well as a number of publications on mountaineering. The rarest volume appears to be a copy of the 1875 publication "Reliquiae Aquitanicae" by Lartet and Christy with an estimated value of around \$6,000.



The front windows of the American Cave Museum were replaced this fall with new double paneled glass. For a few weeks we had a real "open air" museum.



## Volunteers Cleanup Roadside Dump Site

Over thirty volunteers from seven states donated their time to clean up a roadside dump in Horse Cave, Kentucky on Saturday, November 12. This fall conservation project targeted a section of Hart County that was filled with material that had been dumped over the side of the road in a steep wooded area. Located less than two miles from the American Cave Museum, this dump site was situated within Hidden River Cave's drainage basin.

Volunteers removed two large dumpsters of debris including household waste, metal, 50 tires, 6 refrigerators and other appliances, and several small barrels with unknown contents. Most of the trash was old, but some was fairly fresh, including a deer carcass left behind by a hunter.

Even though most of the workers were from other states, many of them were familiar with similar terrain problems. "It looks just like home," said Dr. Tom Jones of Marshall University in Huntington, West Virginia, who brought members of his Bio-Monitoring Class to help with the clean up. "There is still a lot to do," said Jones. "But we've made a lot of progress. Not much of the garbage is new; maybe people are getting the word." Jones has been helping clean up in the area for about 15 years.

Many of the volunteers are regulars at the local projects sponsored by the American Cave Conservation Association. Dr. Horton Hobbs of Wittenberg (Ohio) University accompanied six students who are National Speleological Society Members.

"I think I traveled the farthest," said Jean Trowbridge of Oak Ridge, Tennessee. A member of the East Tennessee Grotto, Trowbridge has been in the area several times mapping the cave and cleaning up dump sites. "Removing unsightly and potentially dangerous trash

from our roadsides and sinkholes is vital to protecting caves and groundwater resources. We appreciate the many hours that our volunteers have dedicated to the American Cave Conservation Association's cave conservation projects," concluded ACCA's executive director Dave Foster.

Local residents, university students, National Speleological Society members, and American Cave Conservation Association volunteers and staff who participated in the fall cleanup included: Jean Trowbridge, Allison Beasley, Amanda Dethman, Jeremy McComas, Thomas Jones, Horton and Susan Hobbs, Geoffrey Smith, Casey Swecker, Missy Shields, Robert McMillas, Keith Donahue, Ryan Hall, Caleb Heimlich, Kate Ferguson, Kevin Kissell, Rachel Horowitz, Erick Twaite, Gary Russell, Taeko and Allan Farman, Victoria Bryant, Matthew Jergensen, John Yakel, Cody and Dawn Brown, David Bunnell, Sydney Bunnell, Charolay Russell, Chris Clark, and Dave Foster.

Information for this article was taken from the *Hart County (KY) News-Herald*, November 20, 2005.

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## Teens Put Leadership Skills Into Action at Hidden River Cave

Working their way carefully along the mud-covered ledges of Hidden River Cave, a group of Hart County teens developed a deeper understanding of themselves, their team and the cave ecosystem. Members of the 2007 Teen Leadership Hart County/Caverna program spent the morning of their retreat discovering their leadership styles and working together in small groups. During the afternoon, they were challenged to refine

*Above: Volunteers worked to remove debris from a sinkhole in Horse Cave, Kentucky this past fall. Photos by Missy Shields.*





Members of the 2007 Teen Leadership Hart County/Caverna paused at the entrance to Hidden River Cave prior to their three-hour Caving Adventure. Adult leader, Amber Huffman, and guide, Peggy Nims, are pictured with members of this year's class – Aleshia Caudill, Mallory Dennison, Meghan Farrell, Payton Fisher, Desarhea Furlong, Jemmye Howell, Rachel Johnson, Kelsey Kingrey, Nicholas Moulder, Chassidy Puckett, Kyle Richadrson, and Alex Rosser. Their afternoon visit to the American Cave Museum and Hidden River Cave was part of the program's annual retreat.

their teambuilding skills by successfully completing the adventure tour as a team. For many of these eighth and ninth grade students it was their first time inside of a cave.

According to ACCA's Education Director, Peggy Nims, "Hidden River Cave's off-trail tour is designed to enhance the student's understanding and appreciation

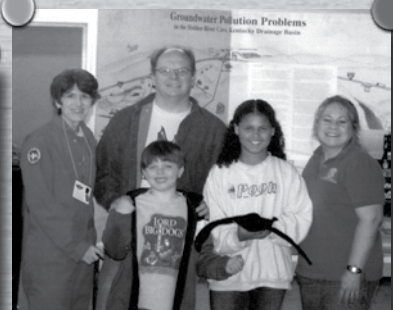
of the cave ecosystem, while challenging them to move out of their comfort zones. The focus of the adventure is cave conservation and teambuilding – respect for the cave and for one another."

Each year ACCA partners with area business and community leaders to facilitate teen leadership groups for middle and high school students in Barren, Edmonson and Hart Counties (KY). While visiting the American Cave & Karst Center, these young leaders discuss quality of life issues related to groundwater protection and grow their leadership skills by participating in the wild caving adventure tour.

Reflecting on the success of this partnership, Nims remarked, "The amazing story of Hidden River Cave's recovery instills in these young people a sense of community pride and motivates them to work together to protect caves and cave resources. Members of the teen leadership programs have identified local sinkholes that were being used as trash dumps and assisted with the cleanup project. Others have used sinkhole models and power point presentations to explain karst to their peers or younger students. These young people are truly using their new knowledge to make a difference in our local environment."

For more information about ACCA's environmental education and leadership programs, contact Peggy Nims at (270) 786-1466.

## ACCA Education Programs



(Left to Right)

Members of the Dadeville (MO) Future Farmers of America Chapter are pictured taking a break during their wild Caving Adventure tour. Their advisor, Dana Kimmons, most liked "the educational value of the experience while having fun – that is what students remember." Photo courtesy of Dadeville FFA Chapter

ACCA staff member Charolay Russell is shown leading students in the "Web of Life" activity that illustrates the interrelationship between the land and the cave ecosystem during Farm Safety Day Camp. Photo by Peggy Nims.

For the past three years, ACCA has partnered with Bowling Green's (KY) Barren River Imaginative Museum of Science (BRIMS) to host an annual fall Cave Day. Jeff Moore, BRIMS board member, is pictured with his children, Jessie and Brianna, and ACCA staff, Peggy Nims and Charolay Russell. Photo courtesy of BRIMS Museum.

# Cave Ownership: Nonprofits Create Great Expectation for Conservation

by Michael Ray Taylor

Blaine Colton

On August 17, 1980, Tom Miller and Pete Shifflett entered a small, unexplored cave near a dry streambed, in a remote canyon of Wyoming's Bighorn Mountains. Just inside the entrance of Dumb Luck cave, the two encountered the stream absent from the surface: a surging force of 39-degree-farenheit whitewater, constrained within a wide crawl. The passage was seldom more than two feet high—and often much lower than one foot. They pushed their way upstream through the icy water, snagging clothing on razor-sharp rocks and losing bits of gear, ripped free by the current. Several times, the two had to back up in passages only inches high in order to try other routes. But they pressed on, in hopes of connecting with a larger known cave whose entrance lay five miles away and 1400 feet higher in elevation.

After hours spent exploring 1500 feet of the most miserable—and potentially deadly—belly crawl imaginable, Miller and Shifflett emerged to walking passage. They began a series of exposed climbs up waterfalls and through plunge pools, until eventually they reached familiar cave passage, and beyond that the surface, in what would ultimately be remembered as one of the single greatest U.S. caving trips of the twentieth century. By connecting Dumb Luck with Great Expectations, the two established what was then a U.S. cave depth record. Dumb Luck was renamed the Great Exit,

and the traverse from upper to lower entrance became known as the most difficult caving through-trip in the country, perhaps the most difficult anywhere.

On August 17, 2005, a quarter century after his discovery trip through "The Grim Crawl of Death," Pete Shifflett returned to Great Expectations. In celebration of his fiftieth birthday, Shifflett led what he called "an old



Ron Simmons

*Top: Approaching the Great Hall, Great Expectations Cave  
Above Right: Jim Smith makes a comical face as he edges along in the 39-degree-farenheit water of the Grim Crawl of Death in 1987. Behind him, the author turns to fire a flashbulb at Sheri Engler as they negotiate the 1000-foot crawl way.*





Ron Simmons

*Sheri Engler follows the Lost Worland River toward the Great Exit in this 1987 photo.*

fart through trip” of five of the cavers who had played pivotal roles in the original exploration and mapping of Great X, the nickname by which cavers everywhere know the challenging cave. These six, along with six younger cavers, safely traversed between the two entrances with amazing speed for such a large group, reaching the Great Exit a mere 16 hours after entering the Crisco Crack at the upper end of the cave.

“There are moments in the Grim Crawl of Death, when the seat is torn out of your wetsuit and rocks are scraping your bare bottom, when you begin to question the intelligence of doing this,” recalls Bob Montgomery, who at 51 was only second oldest on the August through-trip. “But then you realize that this is world class alpine caving, a true once-in-a-lifetime experience.”

It was Shifflett’s eighth—and, he claims, final—Great X through-trip. “I’m probably no longer strong enough to do serious work in the cave,” he admits. “And I have a distinct feeling that I’ve beaten the odds more often than I deserve.”

The cavers, like much of their gear, had changed appearance somewhat in 25 years, although the cave remained



Courtesy of Peter Shifflett

*Above: Topographical overlay of Great Expectations Cave map. The National Speleological Society purchase of 40 acres includes the upper entrance, as well as the entrance to Bad Medicine Cave. Inset: Upper entrance to Great Expectations Cave, photo by Chris Andrews.*



*Pete Shifflett in the Formation Passage off the lower Lost World River canyon. This photo taken August 8, 1985 on the final survey trip to Great X with Jeb Blakeley, Pete Shifflett, and Don Coons.*

the same. With its isolated location, snowed-in most of the year, Great X sees very little human visitation. Today its passages appear exactly as they did when the first carbide lamps penetrated their darkness (although the fossil-lined walls may shine differently in the glare of modern L.E.D. headlamps). Yet in many ways, the cave itself has undergone the greatest change in the quarter century since Shifflett and Miller first established the entrance connection: during the 2005 trip, it belonged to the explorers who traversed it. Specifically, Great Expectation's upper entrance and 40 surrounding acres (including several other known caves) were purchased by the National Speleological Society (NSS) in 2003 as an underground preserve; by the fall of 2005, contributors within the society had nearly repaid the purchase price of \$192,936.16.

Great X is just one of dozens of celebrated American caves that once lay in private hands. In a growing national trend, cave researchers, conservationists, and recreational explorers have banded together to pre-

serve their most precious resources, raising money to purchase and protect caves and karst lands. The NSS and a host of other nonprofit organizations, including the A.C.C.A., the Southeastern Cave Conservancy, the Texas Cave Management Association and the Nature Conservancy, have become legal owners of collectively hundreds of caves, with many more purchases contemplated or in negotiation.

The opportunity to own and manage Hidden River Cave, which had belonged to the family of American Cave Conservation Association member Bill Austin for generations, led to the relocation of A.C.C.A. to Horse Cave, Kentucky, in 1986, and to development of the site for the American Cave Museum. The restoration of the cave—once one of the most polluted sites in America—became a model for cave and karst managers on public lands, as well as a model for cavers interested in purchasing and protecting caves currently in private hands.

At a time when underground wilderness is increasingly threatened by expanding development and shrinking forests, when cave life suffers from groundwater pollution and increased human traffic, group purchases offer tremendous hope for preservation. And to explorers like Shifflett, they also offer a promise of future access to caves that are often closed by private owners fearful of accidents or lawsuits.

Every caver who has spent time in TAG (caver shorthand for the pit-rich region near the intersection of Tennessee, Alabama and Georgia) remembers his or her first rappel of Neversink.

It is not the deepest pit in the U.S.—at only 162 feet, it doesn't even come close. Nor is it particularly difficult. The hike up the mountain expends more energy than does climbing out of the pit. In fact, it is so easy, as 162-foot-deep pits go, that it is often among the first five pits visited by novice vertical cavers. That is probably what makes Neversink so memorable: it is usually the first pit you do that takes your breath away.

For Neversink is a vertical cathedral, a sculpted shaft of stone and greenery and sparkling water that looks as though it were created by a fantasy artist for the cover of a sorcery adventure novel. On first approaching the sinkhole from the well-traveled mountain path, you see a waterfall—a trickle most of the year, but occasionally a frothing cascade—straight ahead, on the far side of a 200-foot diameter opening. Nearly every party that makes the trek up pauses before rigging the drop to walk along the flat ledge, about four feet wide, that curves to the left of the most common rig point. From this ledge you can see all the way down, and although "all the way" is a shorter distance than in many TAG pits, the series of concentric ledges and hollows that



ring the shaft create a visual illusion of impossible depth. As you steady yourself against a small tree and lean out from the ledge to see the log-strewn bottom, lit by a shaft of afternoon sun, you feel an almost magnetic pull, drawing you as though into not just a strange world, but a strange universe. Many cavers, especially the vertical novices who visit the site, find themselves walking with far greater care along the ledge as they return to the rigging point than they may have exercised while stepping out.

Rappelling into Neversink is an intensely visual experience. Because of this, it is one of the most photographed caves in TAG; perhaps one of the most photographed wild caves in the world. It adorns dozens of calendars and caving publications, has appeared in National Geographic and many other magazines. Taking that first step from the lip, moving gingerly backward into space, trusting your gear and rigging against the visual explosion of depth beneath your feet, demands your attention as few other caves—even thousand-foot Mexican pits—can manage. The shaft catches light in such a way that a daytime rappel feels more like mountaineering than caving.

In 1980, the late Frank Hutchison, for many years the vertical training guru of the Florida State Cave Club,

spent a night on the left-hand ledge, a safety line around his sleeping bag, before a planned early morning photo shoot. Forever after, he claimed to have dreamed the most magical dreams of his life that night. By profession an expert in medieval instruments and music, Hutchison woke the rest of his team the next morning with a haunting Gregorian chant that echoed through ring upon ring of stone as from the Earth itself. Long-time caver Brent Aulenbach proposed to his future wife, diamond ring and all, hanging halfway up Neversink. (He had attached the ring to his pack with string, so he wouldn't drop it down the pit.) Nancy, herself a long-time caver, accepted the proposal to the cheers of friends in on the plan, who stood watching from the ledge, cameras snapping. Neversink is the sort of place to inspire uniquely human moments of creativity.

It is thus not surprising that when the pit was closed to recreational use by a new owner in 1991, a fledgling organization of cavers developed a plan to purchase the site and entered negotiations with a real estate agent to do so. The Southeastern Cave Conservancy, Inc. (SCCi) began when Georgia caver Chuck Henson offered to donate property containing an entrance to Howard's Waterfall to a caving organization. None of the Atlanta area caving clubs felt ready to take on direct ownership, but a group of Atlanta cavers realized that by



Ron Simmons

*Although its calcite draperies resemble those in limestone caves, Great Expectations is actually formed in gypsum-rich dolomite.*



Dave Bunnell

*Jenny Whitby in the Enchanted Forest section of Wolf River Cave*

incorporating to manage Henson's donation, they could possibly gain control of Neversink and other popular TAG caves.

"Neversink was a learning experience," recalls John Hickman, chair and C.E.O. of SCCi. "It was sold twice while we were trying to buy it."

In 1993, the cave was sold to another private owner who bypassed the real estate agent with whom SCCi had negotiated, but in 1995 the organization finally acquired Neversink for \$51,000. Most of the money used to purchase the property was donated by individual cavers in exchange for an "I Bought a Piece of the Pit" T-shirt. "It was amazing how many cavers from areas outside of TAG were willing to donate," Hickman says. "Some of the strongest supporters came from areas where there is little or no vertical caving."

The sheer drive to explore and experience the underground draws many into caving, but personal interest often gives way to furthering science and conservation, in both individuals and in groups that own major cave

systems. Although the SCCi had been founded primarily to insure recreational access to popular caves like Neversink and Howard's Waterfall, the organization soon became involved in conservation and scientific management. "When we partnered with the Tennessee Nature Conservancy, that gave us the ability to borrow money," Hickman explains. Working with the Nature Conservancy in Tennessee and other states, the SCCi began identifying properties that contained rare cave species and important archeological material. Soon the SCCi owned caves that were significant for reasons beyond thrilling rappels.

In 2002, with help from the Tennessee Nature Conservancy and Bat Conservation International, the organization purchased Wolf River Cave at an estate auction. This cave combines all of the good reasons for preservation and management by cave-specific organization. It contains miles of passage, with portions decorated by pristine and beautiful formations. It is home to a large colony of endangered bats. And it contains the oldest known human footprints in the dark zone of a cave, left 3500 years ago by Native American explorers.

Of course, the SCCi continues to purchase and manage classic TAG pits, among the 52 caves it owns or leases. Many of these scenic pits—well described in caving convention guidebooks of the 1970s and '80s—had been closed by private landowners in recent years. Now, along with Neversink, Valhalla, Gourdneck, and South Pittsburg Pit (the most recent purchase, completed Sept. 20, 2005) are open via permit to experienced cavers for recreational use.

It was on a recreational trip to Great Expectations in 2002 that cavers discovered the entrance area was for sale: a real estate agent was showing the property to a prospective buyer who hoped to develop it as a vacation retreat. Cavers had long enjoyed positive relations with the owner, a third-generation cattle rancher. "I'd rather see cavers get it than that it be developed," the owner told a group of Wyoming cavers who approached him about the sale.

Bob Montgomery contacted the NSS, which was already owner of a dozen other cave and nature preserves in the east, about purchasing the organization's first western cave. "The problem was that we had to move quickly," Montgomery recalls. "There was already a prospective buyer. The NSS Board of Governors was meeting just two weeks after we found out the property was available, and we convinced the board to bypass its usual decision making process because of the urgency." After unanimous approval from the board, Montgomery began the complicated process of negotiating a deal.

It turned out that no good survey of the property existed, so it was difficult to establish the precise location

of the cave entrance. Moreover, the rancher was interested in acquiring an inholding within his ranch that was owned by a third party; rather than selling Great X directly to the NSS, he was offering to trade the Great X property in exchange for the inholding, which the NSS would purchase. The entrance property would include a 200-foot buffer zone and two other caves, requiring surveys that didn't exist at the time of the negotiation.

"This was December," Montgomery explains, "and the property was snowed in. So we built a clause in the contract that allowed us to move the deed location of the 40 acres according to later survey results. As it turned out, we had to shave acreage from the southwest corner and trade it for acreage on the southeast corner."

But once all the surveys were complete, the cave belonged to the NSS, and a management plan was created. "The NSS owning Great X preserves the ability of trained cavers to access a world-class cave," Montgomery says. "But more than that, it insures the continued study and preservation of the cave. There is now more scientific research taking place in Great X than ever before."

"I'm really hoping that some of the younger cavers I've taken through during the past three years will want to go back and make a project of surveying various leads deep in the cave," Pete Shifflett says of Great X, which he believes still contains unrevealed secrets. "Maybe... maybe... it only takes one lead."



Dave Burnell

*Peter Welles from Met Grotto in a side passage near the main Limrock Blowing entrance.*



## **A Sampling of Nonprofit Organizations Owning Caves**

**American Cave Conservation Association**  
<http://www.cavern.org/>

In addition to its museum and karst education mission, the ACCA has owned and managed Kentucky's Hidden River Cave since 1986.

**Southeastern Cave Conservancy, Inc.**  
<http://www.scci.org/>

Formed in Atlanta in 1991, SCCi now owns or leases 22 preserves comprising dozens of individual caves. Although most of the organization's holdings are centered around the TAG caving area, newer preserves are as far-flung as Georgia and West Virginia.

**Texas Cave Conservancy**  
<http://new.texascaves.org/>

This Austin-based organization, founded in 1994, manages 50 cave preserves and over 150 caves throughout the state, working with private owners as well as acquiring its own properties.

**National Speleological Society**  
<http://www.caves.org/>

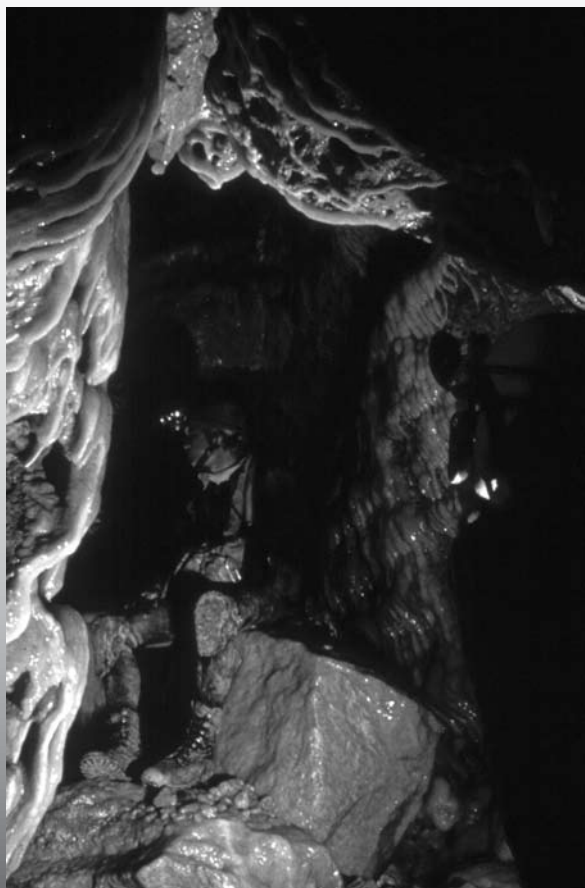
The nation's largest caving organization owns a dozen nature preserves spread over eight states, protecting such well-known caves as Great Expectation in Wyoming, McFail's in New York and Shelta in Alabama.

**The Nature Conservancy**  
<http://nature.org/>

Working through individual state chapters, the country's largest nonprofit conservation organization owns thousands of known caves on approximately 117 million acres worldwide. By partnering with local cave conservation groups, the Nature Conservancy develops long-term cave management plans, and where appropriate assists in transferring cave ownership to cave-specific preserves.

**Texas Cave Management Association**  
<http://www.tcmacaves.org/>

Texas hosts not one but two major cave conservancies. TCMA, founded in 1986, is one of 34 land trusts in the state of Texas, managing over 100 caves for scientific and educational purposes.



Blaine Cotton

*A caver pauses to admire formations in an upper passage of Great Expectations.*

# Below America

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## Wind Cave Expansion

On September 21, President Bush signed legislation, bringing Wind Cave National Park one-step closer to expanding. A bill passed by the Senate in July authorized the sale of 5,550 acres of property owned by Brendan Casey.

The National Park Service is interested in acquiring the Casey property because it includes an American Indian buffalo jump that has been estimated to be over 1,000 years old. Bison were run off of the canyon cliff to kill them for food and clothing. Brendan Casey has said that his family will not sell the property for the price that the government has offered and the property is currently on the market for \$14 million. The government has appraised the property at less than half of this value.

<http://www.aberdeennews.com/mld/aberdeennews/news/12706531.htm>

## Morphology of Fossil Salamanders Reflects Climate Change

September 13, 2005—A fossil record of the Tiger Salamander (*Ambystoma tigrinum*) shows population-wide changes in body size and morphology in response to climate change over the last 3,000 years. These observations offer predictions about the response of the species to future climate change, and the impact on the ecosystem. The research is published in the open access journal, *BMC Ecology*.

Researchers analyzed a late-Holocene fossil record to track morphological traits in the Tiger Salamander through the last 3,000 years. The

team, led by Elizabeth Hadly from Stanford University, United States, analyzed trends in the fossil record within the context of known climate change, to distinguish patterns of response correlating to specific climatic periods during this time.

The fossils were all collected from Lamar Cave in Yellowstone National Park in Wyoming, United States. The cave deposits were dated and divided into five time periods according to their estimated age. The researchers then grouped the fossils into four morphologically distinct groups: young larval, paedomorphic, young terrestrial or old terrestrial, and measured the body size index (BSI) of fossils in each group and time period.

The team found that paedomorphic individuals - sexually mature, yet still aquatic and retaining larval characteristics - were much smaller than terrestrial adult individuals, during the Medieval Warm Period (MWP). The authors claim that this is evidence for a response to warm and dry climate conditions, which allowed a terrestrial ectotherm to flourish. They conclude that the fossil record of the Tiger Salamander reflects known climatic conditions during the MWP, a time period characterized by a warm and dry climate that occurred approximately 1150 to 650 years ago.

Based on these findings, the authors speculate that the future warmer and drier climate predicted for the Yellowstone region is likely to create less permanent aquatic environments and select against aquatic paedomorphic individuals. This scenario would decrease the vertebrate biomass and alter the food web structure in the aquatic system.

*This press release is based on the article: Temporal response of the Tiger Salamander (*Ambystoma tigrinum*) to 3,000 years of climatic variation by Judsen E Bruzgul, Webb Long and Elizabeth A Hadly, BMC Ecology 2005, 5:7 (13 September 2005), <http://www.biomedcentral.com/info/about/pr-releases?pr=20050913>*

## New York State Governor Announces Grants for Capital District Recreation Projects

January 2005—Governor George E. Pataki announced a grant in the amount of \$184,300 to expand public access to historic Cooper's Cave in the village of South Glens Falls. The grant will also provide funding for an interpretive center. Cooper's Cave is located on a small island in the Hudson River a short distance from the village. James Fenimore Cooper made the cave famous in his novel "Last of the Mohicans." [http://www.state.ny.us/governor/press/05/jan27\\_3\\_05.htm](http://www.state.ny.us/governor/press/05/jan27_3_05.htm)

## Gunman Kills 200 Endangered Bats in Arkansas Cave

June 13, 2005—HARRISON, AR Cave explorers discovered the bodies of more than 200 gray bats scattered on the floor of Cave Mountain Cave in the Boxley area. It appears that someone entered the cave while the bats were hibernating during the winter months and killed them with a firearm. The cave was closed during the winter for protection of the bats.

Gray bats hibernate in large clusters on cave ceilings, which would make them easy targets. Special agents of the U.S. Fish and Wildlife Service

are assisting with the investigation and a \$1,000 reward is offered for any information leading to the arrest or conviction of the person(s) involved. Anyone with information may call the Pruitt Ranger Station at (870) 446-5375 or the park headquarters at (870) 741-5443.

Cave Mountain Cave has a population of up to 300,000 gray bats making it the largest population in Arkansas. The bat is a federally endangered species and roosts year-round in only a small number of caves.

[http://nl.newsbank.com/nl-search/we/Archives?s\\_site=baxterbulletin&f\\_site=baxterbulletin&f\\_sitename=Baxter+Bulletin%2C+The+%28Mountain+Home%2C+AR%29&p\\_theme=gannett&p\\_product=BBTB&p\\_action=search&p\\_field\\_base-0=&p\\_text\\_base-0=gunman+kills+bats&Search=Search&p\\_perpage=10&p\\_maxdocs=200&p\\_queryname=700&s\\_search\\_type=keyword&p\\_sort=\\_rank\\_%3AD&p\\_field\\_date-0=YMD\\_date&p\\_params\\_date-0=date%3AB%2CE&p\\_text\\_date-0=](http://nl.newsbank.com/nl-search/we/Archives?s_site=baxterbulletin&f_site=baxterbulletin&f_sitename=Baxter+Bulletin%2C+The+%28Mountain+Home%2C+AR%29&p_theme=gannett&p_product=BBTB&p_action=search&p_field_base-0=&p_text_base-0=gunman+kills+bats&Search=Search&p_perpage=10&p_maxdocs=200&p_queryname=700&s_search_type=keyword&p_sort=_rank_%3AD&p_field_date-0=YMD_date&p_params_date-0=date%3AB%2CE&p_text_date-0=)

### **Senate Panel Begins Work On Domenici Bill to Protect Unique Fort Stanton Cave-Snowy River Passage "Snowy River" Formation Virtually Unprecedented in World," Senator Says**

July 20, 2005—WASHINGTON Work commenced to gain approval of legislation authored by U.S. Senator Pete Domenici to protect one of the most unique cave formations ever discovered in the world—the Snowy River Passage within Fort Stanton Cave in New Mexico.

The Senate Energy and Natural Resources Subcommittee on Public Lands and Forests received testimony on S.1170, the Fort Stanton-Snowy River National Cave Conservation Area Act. The measure would protect, secure and conserve

the natural and unique features of Fort Stanton Cave and the Snowy River passage. The passage is a unique continuous calcite formation, that to date has been mapped to be at least two miles in length.

"This formation is as remarkable as it is beautiful. I am particularly excited about the scientific and educational opportunities associated with this find. My legislation is intended to provide us with a well thought out road map for preserving the passage's uniqueness while also taking advantage of a discovery that has been hidden from mankind for eons," said Domenici, who received a briefing at Fort Stanton Cave in rural Lincoln County, N.M., earlier this month.

"I have been impressed by the level of commitment and excitement among professional cave volunteers and BLM officials about this find and what it represents," Domenici said. "I hope Congress will understand this and soon enact this bill." The bill instructs BLM to prepare a map and legal description of Fort Stanton Cave, and to develop a comprehensive, long-term management plan for the cave area.

The bill would also ensure that the cave is not used for mining operations and but is accessible to colleges, universities and other research institutions. Scientists hope that the passage will yield new discoveries in areas such as water chemistry, weather trends, and flood and drought cycles.

Domenici is chairman of the Senate Energy and Natural Resources Committee that will act next on the bill, which is cosponsored by the panel's lead Democrat, Senator Jeff Bingaman.

"New Mexico is home to some of the most significant cave systems in the world, including Carlsbad

Caverns and Lechuguilla Cave, both of which are protected by Acts of Congress. The discovery of the Snowy River cave complex adds an exciting new chapter to the discovery of major caves in our state and will be an important site for further research and understanding, through designation of the first ever 'National Cave Conservation Area'," Bingaman said.

Dr. Penelope Boston, director of the Cave and Karst Studies Program at New Mexico Tech, testified at the hearing, stressing the unique nature of the Snowy River Passage and the discoveries related to cave geomicrobiology and microbial life yet to be discovered there.

"A few decades ago, Fort Stanton was considered virtually a 'trash cave' because of extensive vandalism and other abuse of its then-known passages," Boston testified. "Cave explorers have now presented us with a splendid feature of unparalleled magnificence, a river of glittering crystals... The cave frontier offers much promise for science, as a possible provider of biological and geological resources, and places of beauty to feed the human spirit. It is our duty to protect it as best we can."

Additional information and images of the Fort Stanton Cave-Snowy River Passage, which is administered by the Bureau of Land Management, are available at <http://domenici.senate.gov> or <http://www.doi.gov>, [http://energy.senate.gov/public/index.cfm?FuseAction=PressReleases.Detail&PressRelease\\_id=234730&Month=7&Year=2005&Party=1](http://energy.senate.gov/public/index.cfm?FuseAction=PressReleases.Detail&PressRelease_id=234730&Month=7&Year=2005&Party=1)

### **Tennessee Chapter Gates Alexander Cave Cave shelters federally endangered Gray bat nursery**

August 8, 2005—Nashville, TN A Perry County cave, which serves

as a baby bat nursery, has been gated by The Nature Conservancy to protect the Gray bat maternity colony that uses the cave every year. Alexander Cave was donated to TNC earlier this year by a Florida businessman. The cave, as well as the surrounding 210 acres, was originally part of a large timber company holding that was sold to M.C. Davis, of Santa Rosa Beach, Fla., last year.

"The Nature Conservancy has wanted to find a way to protect Alexander Cave for years and we had been communicating with the previous landowner. When Mr. Davis asked them about any special places on the property, they told him about the cave and our interest," said Heather Garland, cave and karst director for The Nature Conservancy.

When Davis learned that the cave served as a summertime nursery for Gray bat pups, he contacted Garland. Gray bats are on the federally endangered species list and up to 30,000 have been known to use the cave in the summer. With funds donated by Mr. Davis, the Conservancy erected a steel gate at the site this summer. Volunteers from the Tennessee Wildlife Resources Agency, Heritage Division of the Tennessee Environment and Conservation Department and the U.S. Fish & Wildlife Service helped with the nine day project.

"It is rewarding to join efforts with The Nature Conservancy, the state of Tennessee and local residents for long-term protection of a bat cave," said Davis.

The Conservancy may also work with the Heritage Division of the Tennessee Department of Environment and Conservation to have the site designated a State Natural Area. <http://nature.org/wherewework/northamerica/states/tennessee/press/press2043.html>

## Endangered Species Act In Danger

On September 22, the House Resources Committee approved legislation to restructure the Endangered Species Act (ESA) significantly. This legislation was introduced by Committee Chairman Richard W. Pombo (R-California). Environmental groups as well as many Democrats and Republicans have voiced concern about this pending legislation.

Congress passed the Endangered Species Act in 1973 because many native plants and animals in this country were in the danger of becoming extinct. As stated on the U.S. Fish & Wildlife Service (USFWS) website, "The purpose of the ESA is to conserve 'the ecosystems upon which endangered and threatened species depend and to conserve and recover listed species.' Species may be listed as endangered which means that there is a possibility of extinction of the species throughout the entire or a significant portion of its range. Threatened species are in jeopardy of becoming endangered in the foreseeable future. According to the USFWS, "The ESA is regarded as one of the most comprehensive wildlife conservation laws in the world." The ESA has been reauthorized seven times since its enactment and was due for reauthorizing again in 1993.

Concerns raised regarding the current legislation range from skeptics who believe that the ESA will be significantly weakened to those proponents who trust that the revisions will make the law more effective.

For more information see the websites below:  
<http://www.savetheendangeredspecies-act.org>  
[http://www.fws.gov/endangered/pubs/esa\\_basics.pdf](http://www.fws.gov/endangered/pubs/esa_basics.pdf)

## Fortuño Introduces Bill To Preserve Karst

April 14, 2005— Washington D.C. Puerto Rico Congressman Luis G. Fortuño introduced today a bill to conserve the karst region in Puerto Rico. The bill authorizes the acquisition and management of land in the region for conservation and recreation purposes. This region extends from the municipality of Aguadilla to the municipality of Loiza and is a recharge area for a large portion of the aquifers in the northern part of the island, which provide drinking water to almost a fourth of Puerto Rico's population.

"This bill focuses on establishing the protection of aquifers and the promotion of partnerships among federal and state governments, community organizations and the private sector to preserve this natural treasure as federal public policy," Fortuño said.

"The preservation of the karst as public policy is a first step in this environmental conservation effort. This way, we can facilitate the legislative process to get final Congressional approval," Fortuño added. "The second step will be to get funds to facilitate the acquisition of land that must be protected. This effort must be spurred by partnerships developed among the private

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sector, community organizations, and the state and federal governments."

The protection of the karst region is vital to secure our water supplies, the protection of more than 220 bird species and 34 threatened or endangered wildlife species, and the preservation of Encantado River, which is the longest subterranean and navigable river in the world.

"I also hope that Puerto Ricans can enjoy the beauty that exists in the area without putting its ecological balance at risk. That is why this bill extends to recreation the limited use of this land. I'm extremely thankful for the help from the Ciudadanos del Karso (CDK) and the U.S. Forest Service have provided to me while drafting this bill. I hope to continue working closely with them to get final approval," Fortuño added.

The law will make it the policy of the federal government to conserve the karst region in Puerto Rico. Similar legislation was introduced for the first time in 2000 by then-Resident Commissioner Carlos Romero Barceló.

[http://www.house.gov/apps/list/press/pr00\\_fortuno/Karst.html](http://www.house.gov/apps/list/press/pr00_fortuno/Karst.html)

## Beyond America

### **Palestinian Cave Dwellers in the Southern Hebron Hills Still in Danger of Expulsion**

July 5, 2005 – Today B'Tselem publishes a new report that warns of the state's ongoing efforts to expel some one thousand Palestinians who live in caves in South Mt. Hebron. The report's findings suggest that, having failed to expel the residents by means of legal proceedings, the state is attempting to wear them down systematically until they leave the area.

In the 1970s, Israel declared the area in which the cave residents live a "closed military area," and first expelled them in 1999. In March 2000, the High Court of Justice issued a temporary injunction, returning the residents to the area and preventing the state from expelling them until the court reaches a final decision in the matter. Since then, the residents have lived in an impossible situation with the threat of expulsion hanging over their heads.

The report describes the residents'

life under the constant threat of nearby settlers, who regularly attack them and destroy their property. A survey conducted by B'Tselem found that 88% of the residents have been victims of settler violence, or witnessed such violence toward a first-degree relative. The residents of two villages were forced to abandon their homes in 2000, due the increase in settler violence. The police do little to enforce the law against the settlers, and the army does even less. In some cases, soldiers have even assisted the settlers in carrying out their violent acts.

Israel contends that expulsion of the cave residents is justified as an "imperative military need," and because the cave residents are not permanent residents of the area. B'Tselem's report proves that these contentions are baseless, and demonstrates that Israel has always sought to annex the area and expand the nearby settlements.

[http://www.btselem.org/english/Press\\_Releases/20050705.asp](http://www.btselem.org/english/Press_Releases/20050705.asp) - press release



### **Meeting of the Board of Directors American Cave Conservation Association November 12, 2005**

The following motions were voted on and passed. Following Reggie Van Stockum's resignation in May 2005, John Sagendorf was appointed to complete his unfinished term. Dave Foster presented a draft budget for the 2006 fiscal year which was approved under the condition that it be updated at the next meeting. Noting his numerous accomplishments and service to the ACCA, the Board unanimously voted to make Roy Powers an Honorary Director. The Board also passed a motion of appreciation to David Foster for his hard work with the construction project and the fund-raising campaign.

Dave Foster reported on progress of the American Cave and Karst Center construction work. Because of extensive structural problems which were making it a hazard to the workers, the wing of the building which extended down Cave Street was partially removed. The basement of this building will remain, along with a terrace to be constructed on street level. The exterior construction of the building is 90% complete. Interior bids will be taken over the winter, with the interior construction expected to begin in spring 2006. Dave also reported that the U. S. Fish and Wildlife Service provided grant funds to construct a bat gate at Bacon Cave, Virginia. Roy Powers completed the gate project in August 2005.



# Contributors 2005 - 2006

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John Asriel, M.D.  
Charles Bartlett, Ph.D.  
Richard D. Bell  
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Robert D. Brown  
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