American Caves

American Cave Conservation Association

www.cavern.org Fall 2006



In This Issue

Conservation In Action: Protecting Alexander Cave
ACCA Attacks Mount Trashmore
Hubbard's Cave Gets A New Gate

Contents

Hubbard's Cave

Back:

by Cory Holliday

| Gets A New Gate by Heather Garland | |
|--|----|
| ACCA Attacks Mount Trashmore by David Foster | 10 |
| Conservation In Action: Protecting Alexander Cave by Heather Garland | 14 |
| Sections | |
| Forum | 3 |
| Letters To The Editor | 4 |
| ACCA News | 5 |
| Meeting Summaries ACCA Board of Directors | 18 |
| Photos: Front: The Caverns of Sonora "Butterfly" formation. Photo by Gary Berdeaux | |

The Alexander Cave Gate looking out from inside the cave. Photo

American Caves

Vol. 20 No. 2, Fall 2006

Managing Editor: Debra L. Silverman Layout & Design: Debra L. Silverman

Printing: The Liberty Group, Bowling Green, Kentucky

American Caves (ISSN 1524-4709) is an educational publication produced by the American Cave Conservation Association. Contributed manuscripts and photographs are welcomed and should be addressed to the Editor. Articles are published for educational purposes and do not necessarily reflect the views of the Association. ©The American Cave Conservation Association 2006.

MEMBERS: Please send change of address and correspondence to: P.O. Box 409, Horse Cave, KY 42749; (270)786-1466. Email: shannon@cavern.org

Board of Directors:

13

President: Jim Richards; Vice President: Horton H. Hobbs III; Secretary: Dave Derrick; Treasurer: Steve Sullivan; Directors: Thomas Aley; Richard C. Bell; Richard Blenz; Patricia Daugherty; Jeff Hohman; Dr. Philip E. LaMoreaux; Julian J. Lewis, Ph.D., Dr. James W. Middleton, Jr.; Jim Nieland; Anna G. Smith; John Sagendorf; Bernard W. Szukalski

Honorary Directors:

Honorary President: John Wilson; The Honorable Frederick C. Boucher; William R. Halliday, M.D.; Dr. Francis G. Howarth; Joyce Kelly; Ronal Kerbo; John MacGregor; Roy D. Powers, Jr.; Dr. Merlin Tuttle; Pamela White

Executive Director: David G. Foster
Administrative Assistant: Shannon L. Johnson
Education Director/Community Relations: Peggy A. Nims
Program Coordinator/Chief Interpreter: Chris Clark
Museum Staff: Hannah Carroll; Cecily Carson; Phoebe
Digges-Elliott; Edith Johnson; Donna Monroe; Charolay
Russell; Rose Sisler; Megan Wood

The American Cave Conservation Association was incorporated in 1981 in the Commonwealth of Virginia for scientific and educational purposes. The Association is a nonprofit, tax-exempt corporation under Section 501(c)(3) of the Internal Revenue Code and is a publicly supported organization as defined in Sections 170(b)(1)(IV) and 509(a) Contributions are tax deductible. Membership includes: Student \$15; Regular/Subscription \$25; Foreign \$30; Family: \$35; Supporter: \$50; Sustainer: \$100; Guarantor: \$200; Benefactor: \$500; Patron: \$1,000

Visit our web site: http://www.cavern.org

Forum



From the Director



The broken butterfly with its wing missing. Compare this photo with our cover photo of the butterfly before it was vandalized.

Dear Member:

Every now and then something happens to remind me why our efforts to protect cave and karst resources are so vital. We've had so much success in cleaning up some of the most trashed and damaged caves that it is easy to forget that some cave resources are simply not renewable. If you cut down a forest...you may well have a forest again in a hundred years. When a cave formation gets destroyed...you may not get it back in a thousand years...if ever.

Recently Caverns of Sonora's famous Butterfly formation was vandalized when the right wing was broken off shortly before Thanksgiving. The formation is the heart of this beautiful cave and someone intentionally broke it and took the piece with them. Sadly, authorities don't seem to be taking the vandalism seriously.

The cavern owners inform me that the vandalism of such an irreplaceable wonder of the world in Texas is only a misdemeanor. This law needs to be strengthened and more public education is needed to get authorities to enforce cave protection laws. The public would be outraged if it were just a misdemeanor to deface a Rembrandt or a Picasso. Why is a "genius work of nature" any less valuable than a one-of-a-kind work of man! It is time to write your legislators and tell them so.

The owners of Caverns of Sonora are praying that the person who took the Butterfly wing will return it. This unique formation developed and grew in total darkness for hundreds of thousands of years. The very first light to touch it came from the beam of an explorer's carbide headlamp in 1955. If the wing is returned, it may be repairable. The longer the crystal is out of its natural environment, the harder it will be to restore "The Butterfly," the only known formation of its kind in the world.

A fund for information leading to the recovery of this broken fragment has been established. The mailing address is: Caverns of Sonora, P.O. Box 1196, Sonora, Texas 76950. Also if you have information that can help, their e-mail is: cavernsofsonora@cavernsofsonora.com. Or phone Caverns of Sonora at 325/387-3105.

David G. Foster Executive Director

Letters To The Editor

June 17, 2006

Troop 107 would like to thank you for your wonderful tour of the Hidden River Cave. This year we spent time learning the history of the horrific battle in Gettysburg, touring and learning appreciation past and present of our nation's capitol Washington, D.C., rock climbing in Seneca Rocks, WV, whitewater rafting on the New River, WV, and finally crawling through the mud in an underground river cave in Kentucky. We appreciate your efforts in conserving the cave and the earth around you. Troop 107 lives by the Leave No Trace principles in the outdoors and thank you for teaching the same practices...

Sincerely, Tim Sanders, Scoutmaster



September 11, 2006

I just wanted to let you know how much we have enjoyed helping with the cleanup project at Saltpeter Pit. Your dedication to protecting the karst environment should serve as a model for others. I am enclosing the membership form for myself and Karen and we look forward to being a part of this continuing project as well as other projects in the future...

Sincerely, DeWayne Hyatt, Ph.D.



May 18, 2006

To Whom It May Concern:

This spring break, my family and I visited Hidden River Cave and had a wonderful adventure tour with our guide, Peggy. We had so much fun and got to see many cave animals like bats, crayfish, crickets, and blind fish. This tour was fascinating, and allowed us to see what type of animals live underground. We realize that caves and their creatures are delicate and need help being preserved. Therefore, I would like to make a donation to the ACCA. I believe that the ACCA is a great organization that will help conserve precious environments for future generations of animals and people to enjoy.

This year, a teacher gave me \$100 dollars of his own grant money for me to give to any charity or non-profitable organization that I deemed worthwhile. My teacher, Mr.

Kroening, left me in a pickle for quite awhile. I pondered over which charity I should choose. Finally, I decided to donate to help support the ACCA. My reason behind this is because I love caving. Also, I wanted to give to an organization where my donation would not be just a drop of rain in the sea... I decided to donate to the ACCA, an organization that regrettably may sometimes be overlooked.

I know that I will not regret my choice. I want the people of the ACCA to know that I enjoyed my tour of Hidden River Cave with Peggy. It was so great not to have known a cave as only a hole in the ground with a wooden walkway through it, but also to be able to get dirty! I actually got to snake crawl and cross an underground river. I know that I saw some wildlife that I would never be able to see anywhere else. I appreciate what the ACCA is doing to help preserve the caves and their wildlife. My tour was a unique experience that I know I will never forget (and not just because my old jeans will have cave mud stains on them). Thanks for all that you do.

Sincerely, Amanda Held, age 14



A nine-year-old girl writes to Caverns of Sonora: I was four years old when I first saw the butterfly crystal. The Butterfly was like the story about the only golden apple in the world. When my mom took a tour of the cave, I looked forward to going with her because I knew I was going to see the Butterfly. But now, someone has broken it. I hope the person responsible feels as much pain as that person made me feel.

Seasons Greetings
from the
Board, of Directors and Staff
of the

American Cave

Conservation. Association.

ACCA News

ACCA Presented State Education Award



The American Cave Conservation Association was selected as the 2006 recipient of the Kentucky Association of Environmental Education's (KAEE) Organization of the Year. Each year, KAEE recognizes an outstanding organization for making significant contributions to environmental education. With its multitude of programs, ACCA is a model for raising public awareness about environmental education.

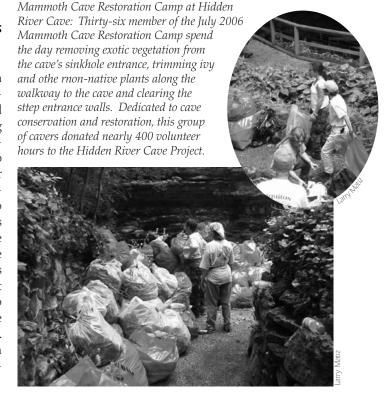
The award was given in recognition of the ACCA's effort to create the American Cave and Karst Center in Horse Cave and provide a unique opportunity for students and the public to discover how human behavior impacts the karst landscape. ACCA's restoration of Hidden River Cave as a living exhibit where students can observe first hand the dynamics of a cave system was also cited. Standing merely inches above a sometimes rapidly gushing cave stream, students observe how quickly anything dropped or spilled on the overlying land quickly enters the underground aquifers in cave areas.

Along with the Center's interpretive exhibits and the cave, the ACCA provides hands-on activities which allow students to collect and analyze data, construct groundwater models, problem solve land use issues, and become cave explorers for a day. The outcome of these environmental education programs is to raise awareness of the problems and issues affecting karst regions. According to Peggy Nims, ACCA Education Director, "The KAEE environmental education award is a tribute to the American Cave Conservation Association's vision to increase environmental literacy of our citizens regarding karst ecosystems."

Above: Kentucky Association of Environmental Education President, Julie Gee, presents the KAEE Organization of the Year Award to Peggy Bunnell Nims, American Cave Conservation Association Education Director, at the 2006 fall KAEE conference.

Mammoth Cave Restoration Camp Helps Cleanup Mammoth Cave and Removes Non-native vegetation at Hidden River Cave

About 35 volunteers descended on Mammoth Cave in July 2006 as part of the annual Mammoth Cave Restoration Camp. The group has been assisting the National Park Service for several years with removing old rotting sections of discontinued trails and general cleanup efforts at Mammoth Cave. This year, the group offered to provide a day of assistance to the ACCA at Hidden River Cave, as well. Cave biologist Jerry Lewis, also a Director of ACCA, suggested a substantial amount of help was needed to remove non-native vegetation that was proliferating around the entrance of Hidden River Cave dating from the 1930s era when the cave was a private operation. The cliff and entrance slope of the cave was literally covered with English Ivy which was choking out the ferns and other native plants. The restoration group removed more than 100 large bags full of the non-native ivy from the cave entrance and the trees surrounding it. The staff and board of ACCA wish to thank Mammoth Cave National Park and the terrific Mammoth Cave Restoration volunteers for their hard work and assistance.



American Caves • Fall 2006 5



Museum Expansion & Funding Continues

The American Cave and Karst Center's museum expansion slowed over the summer for a number of reasons related to the need to obtain additional funding and the paperwork required to secure historic tax credits. We also mourned the passing of grant administrator Wil Linder. Wil was a tireless advocate for the economic needs of small communities such as Horse Cave. His help was instrumental in securing funding for the American Cave and Karst Center.

This winter we are accepting bids for interior work on the expansion and expect the work to be substantially completed in 2007. Already building improvements are noticable. In October, the front of the museum received a dramatic new facelift with the addition of new awning which spans the three buildings being renovated to form the new Museum Center.

James Cave Restoration A Success For Gray Bats

On Saturday, September 2, 2006, ACCA partnered with the James Cavers and the U.S. Fish and Wildlife Service to remove several tons of old rotting tour debris from James Cave at Park City, Kentucky. James Cave is the most important Endangered gray bat hibernation site in Kentucky. The ACCA working with the U.S. Fish and Wildlife Service, the Kentucky Department of Fish and Wildlife Resources, the Coach and James Cave Mapping Group, and the National Speleological Society have been working to protect and restore the cave since 1992.

Historically, the cave supported several hundred thousand gray bats as well as a small population of Endangered Indiana bats. In the 1960's the cave was commercialized and an extensive series of wooden stairs, platforms and walkways were built. During the 60's and early 70's tours through the bat section of the cave led to a decline of the bat population to a few thousand bats. On the recommendation of Dr. Merlin Tuttle of Bat Conservation International, commercial tours of the bat section were eventually stopped during the hibernation season and the gray bat population began to recover. Their recovery was limited by poorly designed gates that restricted airflow into the cave and made the bats susceptible to predators as they entered and left the cave.

In 1992 and 1993 the gates at James Cave were replaced with new ACCA bat friendly designs. Because of the



Volunteers remove debris from James Cave, Kentucky

gates, James Cave's gray bat population increased to about 300,000 bats by 1997. The bat population has been monitored every two years since 1980; however, surveys could not be conducted for the past 4 years because of the deterioration of the old wooden stairs leading to the hibernation section of the cave. In order to conduct the next bat survey, scheduled for January 2007, the rotting stairs had to be removed and taken out of the cave. The Coach and James Cave Mapping Group, acting as volunteers for the Service, spent two weekends dismantling the rotten stairs and platforms. During the September 2nd work day, approximately 40 ACCA and James Caver volunteers removed this material from the cave.







May and November Volunteer Clean Ups

On May 13, 2006, ACCA held its annual volunteer dump cleanup at a small cave about 5 miles east of the City of Glasgow, Kentucky. The project site was a small 200 foot cavern with a 20 foot deep entrance pit where household garbage had been dumped. The Barren County Fiscal Court donated a dumpster for the project and about 20 volunteers descended upon the cave. The project was tough going with bags having to be passed up a ladder in order to get the refuse to the surface. About three-fourths of the dumpster was filled by the end of the day, but a substantial amount of garbage remained in the pit. ACCA pledged to return in the fall to complete the job.

On November 11, 2006, we returned to the site with 23 volunteers. This time we brought ropes and pulleys and large haul bags (courtesy of the Saltpeter Pit project) and were able to move the waste more quickly and safely out of the pit. Barren County Fiscal Court again donated the dumpster and the county's solid waste manager brought a front end loader which was a big help in carrying waste to the dumpster. After about five hours of hard work, the last of the garbage was removed from the pit. Another Kentucky cave is now clean thanks to our dedicated volunteers.

(Top left) Volunteers from Kentucky, Tennessee, Ohio and Michigan joined forces this past spring to begin the restoration of a cave in Barren County, Kentucky, photo by: Rose Sisler, (Top center) ACCA member John Sies hands garbage up to volunteers James Bowman (center) and Shady Sabbagh (top), photo by: Rose Sisler, (Top right) Volunteers from four states completed the cleanup of the Barren County Cave. This determined group filled a large dumpster with hundreds of pounds of household garbage and collected several pounds of recyclable materials, photo by Jamie Macdonald/courtesy: Missy Shields.

ACCA Gates Bacon and Grigsby Caves

Over the past Summer and Fall 2005, ACCA partnered with the U.S. Fish and Wildlife Service to construct bat-friendly cave gates at Bacon Cave in Lee County and Grigsby Cave in Scott County. The goal of the projects was to protect maternity sites for the endangered Gray bat in southwestern Virginia. The bat-friendly cave gate at Bacon Cave was completed on August 14, 2005 and the gate at Grigsby Cave was completed on July 6, 2006.

The project is aiding in the recovery of the Gray bat, Myotis grisescens, listed as Endangered by the U.S. Fish and Wildlife Service under the Endangered Species Act of 1973. Gray bats are known to use or have used in the past a total of twelve caves in Virginia, ten of which are currently used by the species. Of these caves, only two are know at present to host maternity colonies - Bacon Cave in Lee County and Grigsby Cave in Scott County. Gray bats have only been documented in Virginia caves during the summer months. No gray bat hibernaculum has been identified in Virginia. Considerable effort and



The completed bat-friendly gate at Grigsby Cave

money has been invested by the U.S. Fish and Wildlife Service and other agencies in protection of these hibernacula, and protection of summer maternity sites; was a necessary complementary activity for long term protection of Gray bat populations.

(continued on page 8)

(continued from page 7)

In the spring, Gray bats emerging from hibernacula disperse upstream along the Powell, Clinch, and Holston rivers to summer maternity sites and bachelor colonies. These summer caves are invariably along the major rivers or tributaries, where the bats feed at night. Both Bacon Cave and Grigsby Cave were only recently identified as maternity sites; Bacon in 2003 and Grigsby in 1995 (verified in 2004). Prior to that the only documented maternity site in Virginia was Gibson-Frazier Cave in Lee County, which was used as a maternity colony up to the mid-20th century when the owner boarded up the entrance to discourage vandalism of a water pump. The U.S. Fish and Wildlife Service worked with Roy Powers of the ACCA to replace the wooden structure with a bat-friendly gate. Visitation of the cave in June of 2004, however, revealed no evidence that Gray bats had yet reoccupied the cave.

The owners of Bacon and Grigsby Caves agreed to allow construction of the bat-friendly gates to help aid them in their stewardship of these important sites. Both of these caves showed signs of significant human visitation, and fishermen frequently use the upper entrance of Bacon Cave as a camping spot, frequently lighting campfires on the scenic ledge overlooking the Powell River. Gray bat maternity colonies are sensitive to disturbance, and such visitation could cause abandonment of these sites. Because the number of suitable sites - warm limestone

caves adjacent to major streams - is limited, conservation of these sites is important for the perpetuation and recovery of Gray bat populations in Virginia.

Part of the cost for construction of the gates was provided from the Virginia Department of Mines, Minerals, and Energy (DMME). The remaining funds were provided by the U.S. Fish and Wildlife Service. The project designer Roy Powers and welder Jerry Fant also donated a portion of their services on behalf of the American Cave Conservation Association to enable the project to be accomplished within the available budget. The DMME funds were a result of a compensatory settlement for the closure, due to safety concerns, of a mine portal in Wise County, Virginia that hosted a small hibernating population of Myotis liebii, the Eastern Small-footed Bat. Because no suitable project for compensatory mitigation for Myotis liebii could be found in southwestern Virginia, the Department of Game and Inland Fisheries approved the use of the compensatory funds for protection of Gray bat populations in the upper Tennessee River basin.

Special thanks to the following agencies for contributions of volunteer time to the projects: Virginia Division of Natural Heritage, Virginia Department of Game and Inland Fisheries. U.S. Fish and Wildlife Service, National Speleological Society, American Cave Conservation Association, and Bat Conservation International.

ACCA Education Update



ACCA Partners with Western Kentucky University

Students participating in the 2006 Ecology Camps spent two days studying water quality issues and karst conservation while visiting Hidden River Cave and the American Cave Museum. The Regional Science Resource Center at Western Kentucky University sponsors the Ecology Camps to provide middle school students hands-on learning related to local and global ecological issues. Members of the Ecology Camp I are pictured at the American Cave Museum where they completed interactive environmental education activites with their in-



structors -- Julie Gee, Charolay Russell and Peggy Nims. The Adavanced Ecology Camp is shown exploring the upstream section of Hidden River Cave where they observed several cave animals while learning first-hand about the karst ecosystem. For more information about karst field trips, contact Peggy at (270) 786-1466.

ACCA hosts Teachers' Workshops at the American Cave and Karst Center

In spring 2006, the American Cave Conservation Association collaborated with several



Kentucky school districts to offer relevant, hands-on karst education training for formal and non-formal educators. The daylong session featured a morning classroom session led by Caverna Middle School's earth science teacher, Dianne Piper, and an afternoon Hidden River Cave ecology tour led by Piper and ACCA's Education Director, Peggy Nims. In a second session, certified environmental educator and facilitator, Debra Spillman, led participants in Project Wet certification activities. Instructor Dianne Piper is pictured demonstrating the use of the karst groundwater model in the classroom.



American Cave Conservation Association's Ecology Tour

ACCA's off-trail ecology tour (caving adventure) continues to attract student, scout and church groups from Kentucky and surrounding states. The focus of this 3-hour tour is cave conservation, karst geology and teambuilding. Members of the 2007 Glasgow/Barren County (KY) Leaders of the Future class are pictured with ACCA staff and chaperons prior to their tour of Hidden River Cave. These eighth and ninth grade students from three area high schools spend seven months together developing their leadership skills; exploring the rich natural resources, economic diversity, health care, government agencies, and post-secondary education opportunities of their community; and completing service projects. The amazing story of Hidden River Cave's recovery from groundwater contamination and the ecology cave tour are part of the group's "Quality of Life" session.

Thank you!

July 2006 Mammoth Cave Restoration Volunteers

Kathryn Albee, FL Julie Angel, IL Kevin Betz, IN Eric Buckelew, FL Larry Bundy, IN Linda Bundy, IN Dan Carlson, MI Bill Copeland, MO Corey DeJonge, MI Ken DeJonge, Mi Joe Diaz, CO Preston Forsythe, KY Shari Forsythe, KY Patti Horton, KY Shawn Horton, KY Martha Jacobs, OH Karen Kennedy, FL John Kirk, IL Keith Kuhlman, CO Jonathan Lewis, KY Craig Luehr, IL Deborah Luehr, IL Dawn Margrabe, WI Larry Matiz, OH Steve Petruniak, FL Everett Pulliam, IN Dana Rea, NC Beth Reinke, IL Todd Richards, OH Pam Saberton, MO Roy Vanhoozer, KY Mark Walker, KY Charles Waller, VA Sue Whittaker, WI Rick Williams, OH Dan Williams, OH

Spring 2006 Barren County Cleanup Volunteers & Staff

Thomas Sisler John Sies James Bowman Robert Ward John Prisel Jamie Macdonald Paul Ambrogio Gary Nelson Shady Sabbagh Omer Kassim Casimier Dec Josje Hebbes Joseph Ownes Bob Anderson Thomas Anderson Rose Sisler Chris Clark Dave Foster

James Cave Restoration Volunteers

James Honaker
Donnie Davis
Lisa Davis
Bill Eidson
Nancye Eidson
Tom Boehler
Mindy Boehler
Sheila Boehler
Mark Boehler
Stephen Bishop
Kelly Nelson
Amy Davis
Donald A. Davis
Steve Duncan

Susie Duncan Tim Moots Anmar Mirza Tom Vertrees Charlette Vertrees Ioe Kearns Jessica Deli Jim Currens Teresa Currens Ben Currens Catherine Bishop Charles Bishop Preston Forsythe Sheri Forsythe Bob Currie Traci Hemberger Paula Porter Don Paquette George Corrie Dave Foster Peggy Nims Donald R. Nims

Fall 2006 Cleanup Volunteers

Rose Sisler David Foster Chris Clark Missy Shields Paul Mihalah Susan Wiedmann Gary Nelson Casimier Dec Robert Ward Karl Niles Paula Sies John Sies Jamie Macdonald Heidi Peters Cynthia Bruce Jacob Bruce **Jonathan Bruce** Amanda Bruce Lee Bledsoe Robert Rudolph

Scott Hendry Johnny Kinslow Tim Taylor

Bambi Dunlap

Saltpeter Pit Volunteers & Staff

Karen Garland Chervl Pratt Rose Sisler Peter Michaud Lee Florea Traci Fearday Jess Cubel John Cassidy Roy Powers, Jr. Mark Joop Dave Foster Justin Gibbs Ronald Pyles Heidi Peters Pablo Accala John Attaway Kevin Toepke Jim Wilbanks Bill Simpson Cat Kennedy Karl Niles Jim Richards Chris Clark Heather Pyles E. Dewayne Hyatt Josje Hebbes Jillian Ogawa Myrna Attaway Judith Camiener Tama Cassidy Chris Hacker Jim Kennedy Dianne Piper Jerry Fant Ben Kim

Boy Scout Troop #605 from Rising Sun, IN for completing clean-up projects at Hidden River Cave

ACCA Attacks Mount

merican Cave Conservation Association (ACCA) AProject Director, Chris Clark, walked into my office in November of 2005 with interesting news. "We've just found one of the largest Rafinesque's big-eared bat colonies in the world...but there's a problem. The colony of approximately 500 rare bats are living inside a cave which is nearly choked with a forty-foot tall mound of garbage!"

Chris had been part of Bat Conservation International's Kentucky Saltpeter Caves Research Team. The group was studying old saltpeter caves for evidence of historic bat populations. Saltpeter is an ingredient in gunpowder which is found in cave soils. Many of Kentucky's caves were mined to provide powder for the American soldiers during the War of 1812.

A few days after hearing this news, I received a call from Dr. Merlin Tuttle, Director of Bat Conservation International. Dr. Tuttle and I discussed the garbage dump at Saltpeter Pit and agreed to partner to get the mess cleaned up.

Once the decision was made to tackle this enormous project, we began approaching funding sources for the cleanup. Both ACCA and BCI agreed to provide startup funding and we received receptive audiences from the Beneficia Foundation and Eastern Kentucky Pride. Although we would not know for certain whether the grant funds would be allocated until right before we began working, we went ahead with plans to clean up the pit.

The biggest problem was logistical. The entrance to the







Trashmore

David Foster, Executive Director

American Cave Conservation Association

cave is via a steep-sided 70 to 80 foot deep pit (depending upon how it's measured). The mound of garbage at the bottom was enormous. On our initial reconnoitering trip, we counted more than 7 refrigerators. The forty foot high muck pile contained thousands of pounds of household garbage, appliances, tires, old rugs, and who knows what else!

Local cave explorers told us that the cave's nickname was "Mount Trashmore" and that for decades they had been rappelling into the cave and climbing carefully down the trash pile in order to explore the rest of the cave. Interviews with local landowners suggested that a relative of the cave owner had been trying to fill the pit for 30 years by inviting neighbors to dump there. The effort to fill the cave was very nearly successful.

To overcome the technical challenges, ACCA enlisted the help of veteran cave gate builder and engineer Roy Powers and his protege, Jerry Fant. Jerry and Roy devised an elaborate hauling system which would be mounted over the cave and left in place until the cleanup could be completed. We assumed that the cleanup could take years.

The hauling system consisted of a steel I beam mounted on steel posts on each end of the cave pit. A heavy duty trolley was then mounted on the I beam. A jeep with a wench attached to the bumper was then used to pull the garbage loads up to the trolley. A belay line would hold the trolley in place over the center of the pit until the haul bags reached the top, and then slack would be released to let the load roll down the length of the beam where it could be dropped into the blade of a Bobcat. Caver Jim









Jerry Fant/Benedict Kin

Benedict Kim



Wilbanks, a veteran of numerous cave cleanups in the Southeast, contributed more than a dozen heavy duty polywoven haul bags with handles. The bags were capable of hauling hundreds of pounds at a time and could be used over and over again.

In July 2006, ACCA began a two-week long effort to get the cleanup started. It took more than a week to construct the hauling system and work out the bugs, but by the second week, the system was working flawlessly. Over the first two weeks approximately 40 caver volunteers showed up from Tennessee, Georgia, Kentucky, Virginia, Texas, Alabama, Ohio and Indiana to help with the work. Just getting to the work site for the cavers was challenging. It required rappelling thirty feet to the top of the garbage mound and using a climbing rig to ascend the ropes in order to escape the pit at the end of the day.

After a week of hauling garbage out of the pit, at a rate of about 15 cubic yards per day, it was clear that the project was going to be considerably longer and more costly than estimated. Our initial two week effort removed approximately 170 cubic yards of garbage from the pit. We packed our bags and headed back to Horse Cave. We organized a follow up cleanup in September and removed another 30 cubic yards of garbage over a single weekend. Waste Management Incorporated, the area's waste hauler, generously offered to waive their hauling and tipping fees for the first five dumpster loads.

The September cleanup would have to be the final effort until 2007 because the hibernating bats were expected to return in October. Conducting the cleanup during hibernating months would likely disturb the sensitive bat population. Although it is difficult to estimate the remaining garbage in Saltpeter Pit, we have calculated

that there is probably more than a thousand cubic yards of trash left to be removed.

As the year 2006 winds down, the Saltpeter Pit Cleanup has become one of the most difficult challenges ever undertaken by the American Cave Conservation Association. Already, Eastern Kentucky Pride, a grant program devoted to cleaning up dump sites, has pledged an additional \$45,000 towards the project and Bat Conservation International has pledged an additional \$5,000. ACCA will be raising funds throughout the winter months in hopes of mounting an all out assault on Mount Trashmore next summer. More volunteers will be needed. Anyone interested in helping with this exciting project should contact Chris Clark at the ACCA headquarters at (270) 786-1466 or his e-mail: clark_c17@yahoo.com.



500-600 Rafinesques's big-eared bats spend the winter in Saltpeter Pit.



The new south entrance gate.

Hubbard's Cave Gets A New Gate

Heather Garland Cave and Karst Program Manager The Nature Conservancy, Tennessee

In 1985 the American Cave Conservation Association **L**partnered with the Tennessee Chapter of the Nature Conservancy, along with numerous public and private partners, to construct what at the time was the world's largest cave gate at the Nature Conservancy's newly acquired Hubbards Cave Preserve in Warren County, Tennessee. The purpose of this more than thirty foot tall steel gate would be to protect the south entrance to Hubbards Cave, one of the state's most important bat hibernacula and home to two federally endangered species; the gray bat (Myotis grisescens) and the Indiana bat (Myotis sodalis). The hope was that the gate would curb the over-visitation and vandalism, long-held traditions at the cave, responsible for both a marked decline in bat numbers and the destruction of historical and archaeological artifacts in the cave. Since that first effort, additional gates have been erected to further protect and manage this preserve to benefit the rare species in Hubbards Cave. The results of these conservation efforts have been a dramatic increase in the number of gray bats hibernating in the cave, and the forging of valuable partnerships.

A decision was made in late 2005 to remove the 20-year

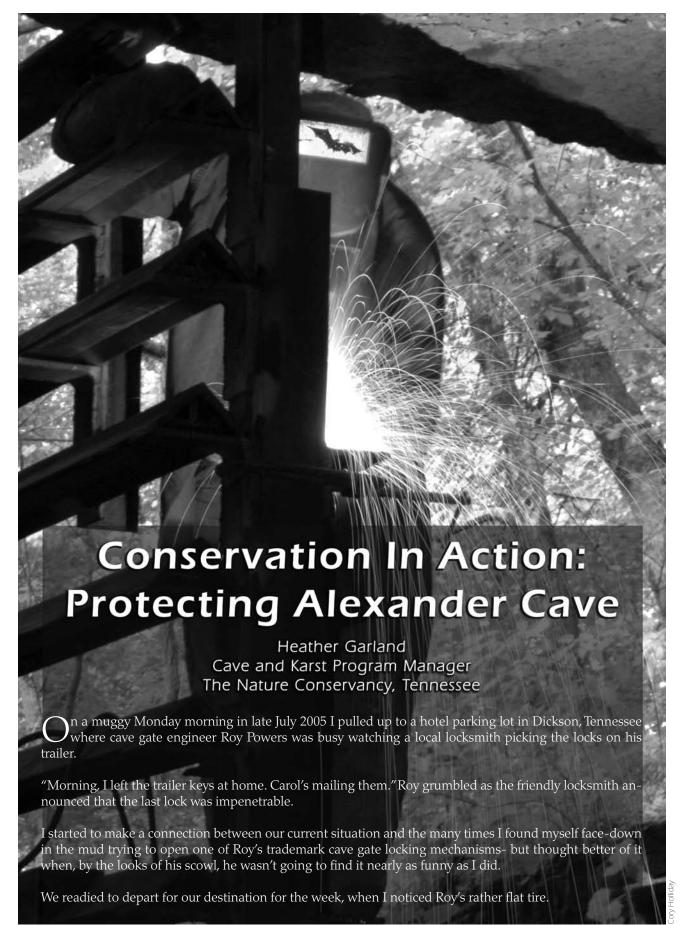


Old sections of the gate being hauled off by a crane.

old south entrance gate and replace it with a more current design that would better accommodate the growing bat colony and thwart recent attempts by vandals to defeat the old structure. In May 2006, a familiar group of dedicated partners and volunteers gathered together to accomplish another remarkable feat of conservation which will hopefully protect the Hubbards Cave bats for another twenty years. The design of the new south entrance gate will allow for the bats to fly directly over the structure, eliminating the need to navigate through the steel bars and increasing the amount of flyway space for the increasing bat colony. This project took nine days and nearly fifty volunteers to complete. The Nature Conservancy would like to thank all of those who came out to support the protection of this wonderful preserve: American Cave Conservation Association, Bat Conservation International, National Speleological Society local grotto members, TDEC-Division of Natural Heritage, TN Wildlife Resources Agency, TNC-Michigan Chapter, U.S. Fish and Wildlife Service, VA Dept. of Natural Resources, and all of the other folks who showed up and worked hard! Funding for this project was provided by the U.S. Fish and Wildlife Society, the Wallace Research Foundation, and Mr. M.C. Davis.



Volunteers install the new gate.



"Uh, Roy, do you have something really heavy in the back of the Jeep?" I asked with some amount of trepidation. There were volunteers waiting for us at the site.

"No. Why?"

"Well, your tire over here's pretty low."

With a "dang it" we were off to the nearest gas station to remedy the problem and find some breakfast, which consisted of pre-packaged little donuts and a nutty bar because (and you should know this for future reference) there is no Hardee's in Dickson. This cave gate project was looking longer by the minute.

Alexander Cave

Carved from a limestone bluff, set back several hundred feet from the Duck River, is the gaping forty foot wide entrance to Alexander Cave. This cave once provided shelter to Native Americans, as evidenced by mussel shells and worked chert fragments scattered around the entrance. Perhaps the cave was a campsite for hunting parties scouting game in the bottomlands of the river, for as one colleague once said "those shells didn't walk up to the cave on their own."

One long-time visitor to the cave has also left its mark on Alexander Cave, and that's the gray bat (Myotis grisescens). The cave is home to a large maternity colony of this federally endangered species during the summer. They likely chose the spot due to its perfect microclimate for raising young bats and close proximity to an ideal hunting ground, the Duck River. In making themselves at home the bats have created numerous piles of guano throughout the cave. While these dark mounds are little more than a foul-smelling biohazard in many peoples' opinions, to biologists searching for this rare animal they are a lucky find. In addition to giving an indication of the colony's size, guano piles provide food to the many smaller creatures in the cave, such as springtails. The springtails, in turn, provide food for larger creatures like pseudoscorpions which are abundant in Alexander Cave.

A Conservation Opportunity

While biologists and conservationists have known about this cave and its unique residents for many years, only recently has long-term protection of the site been possible. The cave and surrounding property was once part of Willamette Industries' extensive Tennessee landholdings. During this time, The Nature Conservancy (TNC) worked with resource managers at Willamette who had an interest in protecting the cave habitat for the bats. In 2002, the property was purchased by Weyerhauser Timber Corporation but they didn't keep the land for very long and soon it was up for sale again.



Above: Alexander Cave gate construction on day 6. Left page: Roy Powers welds a piece of steel in place.

Lucky for the cave, a Florida businessman named M.C. Davis entered the picture and bought the property. Davis learned about the cave during the sale and phoned TNC's Nashville office offering to donate the cave and a surrounding buffer.

When I received the call, it took more than a few minutes for me to believe what I was hearing. Ever the skeptic, I was sure that one of my friends was playing a little joke on me. It's a rare thing that someone would call, out of the clear blue sky, and offer to donate a cave—with a federally endangered species to boot.

What I didn't know was that M.C. Davis is known for his generosity and dedication to conservation. In Florida, he and his partners have put together a 53,000 acre preserve named Nokuse Plantation. The word "Nokuse" means "black bear" in the Creek Indian language and is an apt name, symbolizing the desire to restore ecosystems to provide suitable habitat for large ranging mammals such as the Florida Black Bear.

Davis asked me to determine a suitable boundary that would eventually become the preserve, providing a buffer for the footprint of the cave as well as maintain forest habitat for roosting and foraging bats. After consulting with Dr. Michael Kennedy, a mammalogist at the University of Memphis, and Chad Hardin, a biologist with the Tennessee Division of Natural Heritage, a preserve design was drawn with the help of TNC GIS Specialist Joey Wisby. Kennedy, Hardin, and I met Davis at the site to show him our plan and get in a little caving. In the end, he donated 265 acres to establish the Alexander Cave Preserve.

The Project At Hand

In addition to the land donation, Davis requested that the cave be secured with an angle-iron gate and donated funding to that end. Matched with funds from the



Heather Garland cuts a hanger for the Alexander Cave Gate.

U.S. Fish and Wildlife Service and the Wallace Research Foundation, we were able to organize this massive project for the summer of 2005.

Which brings us back to Roy.

While the project was scheduled to begin on this steamy Monday morning, volunteers had already been hard at work as steel arrived on site the previous Friday (well, near the site, where further transport was by hand, truck, and ATV). In addition, a trail had to be constructed up to the cave where the slope was slick and treacherous. So, by the time Roy and I pulled up at the property things were pretty well in place.

Day one consisted mainly of hauling the remaining steel pieces closer to the cave, digging out and placing the footer, complaining about the heat, and worrying about whether or not we would have enough help through the upcoming week. By Day two the project began to hit a steady stride; cut, haul, weld... head-scratching... cut, haul, weld... head-scratching... and so on. Even though the temperature was harsh, the cool of the cave entrance

offered a pleasant respite for those able to nab a break while the engineer stood pondering his next move.

Anyone who has worked on a cave gating project knows how exhausting it can be to carry steel all day long. Anyone who has organized a cave gating project will understand when I say that by day three things become a bit of a blur and only the truly unique moments stand out in your addled brain. Therefore to avoid the risk of boring you, dear reader, with the mundane details of piecing a metal masterpiece together, I have instead decided to share with you a couple of the little-told shocking tales from the field.

Shocking Tales From the Field

"Lightning Loves Caves"

For many years I have overheard various people proclaiming this fact while standing outside in the rain. I must admit that I have always been curious about the mechanics of such a statement—could it be true, an urban legend, or an excuse to get out of the rain and hit the nearest diner? Curious yes, but not brave enough to test the theory on my own. At least, that's always been the stand I've taken on the subject.

Weather is a tricky thing for any outdoor event. This is especially true when you think it might be possible that you and your comrades have unwittingly pitched your tents below a runoff channel from the nearby grassy hill, upon which sits the campground bathhouse, in order to find a flat spot. So, when you hear the words "Was that thunder?" your ears strain to hear the suspect noise and answer "Oh, that's just a plane."

In this case, the initial call was correct and soon the winds kicked up, rain was spitting about, and the storm began to circle the site. Work continued but for several volunteers who were without four-wheel drive vehicles and thought it best to get on out of there in case the rain started falling hard, whereby it was entirely possible that the dirt logging roads would become muddy sloughs.

Roy finally halted work when lightning was spotted making its way across the sky, although as we sat on coolers and truck tailgates we were sure that it would pass. Just a mess of barking with no teeth. After nearly an hour of trying to guess the Queen of Country Music (who is apparently, by the way, Miss Kitty Wells) with the sky threatened to fall in on our heads, we called its bluff and went back up to the cave. Naturally, as we got settled back into the task at hand the weather changed with cutting horse precision. Like a Mustang from the muscle-car era, it went from hardly sprinkling to a full-fledged torrent in less than six seconds.

Suddenly, the thunder was close enough to feel in your boots and lightning was cracking all around. People took off in all directions to pack up and skedaddle–securing equipment, breaking down the acetylene torches, gathering Roy's C-clamps. I started to worry about the condition of the logging road and my admitted nervousness at driving downhill on muddy, slimy roads. Then I started to panic, thinking that it might do this for days and we'll never get this project finished. And there were our tents to worry about... and had someone pulled down the protective plastic so the bats would be able to exit the cave... and is there a welder sitting out in the rain somewhere... and yet, what a wonderful opportunity to test out the theory.

Just then a loud, unnerving crack sizzled the air and Roy, who had been working on tearing down the torch up at the cave, came barreling past declaring that the torch set was staying up at the cave. It was then, I believe, that we had our answer.

"Meteors Over the Piney"

We had managed to secure a nice campground for the project that sat along the Piney River. It was a friendly place and the owners were very laid-back, even selling beer and ice from the little store for times when you might need to relax a bit after working in the hot sun all day. A small winding road separated the main camp from our site and the bathhouse, and it was on this road that an unusual sight was observed.

It was evening and the cicadas and crickets were chirping madly, as they do on summer nights, and Cory Holliday (TNC), Jim Hall (Alabama Cave Survey), and I were standing in the middle of the road talking about this and that. Suddenly, a bright light streaked through the sky very low above the trees. It took us all aback, as it was so large and colorful and seemed such an odd thing to see.

My first thought was that it was a shooting star, but since it was so low in the sky Jim thought that maybe it was a firecracker. But then, it was definitely heading toward the earth and not up into the sky. Additionally, it made not a sound.

After several minutes of discussing possible answers for the strange sight, the chirping that had filled the evening went completely silent. Following this unusual quiet a loud thud was heard while a tremor issued from the earth into our shoes. Something had definitely hit the ground. And from the sounds of it, didn't miss us by very much.

The next day we learned that there were dozens of reports to emergency authorities in the next county of the very thud we experienced the night before. It was reported in a small newspaper in Hickman County. The object was spotted by a friend in Nashville more than seventy miles away to the east. However, we never did learn anything more about it and there were no further reports of the mysterious object. It was almost like it never happened... but you didn't hear that from me.

Mission Accomplished

After 8 days, 3900 feet of steel, 4 oxygen tanks, 2 acetylene tanks, 50 pounds of welding rods, 33 volunteers, and countless bottles of Gatorade we were finally finished with the Alexander Cave gate. The result is a structure that will help to secure the cave while the gray bats are in residence and ease management concerns. The design, taking into account the colony type and number of bats using the cave, has incorporated both a bay window and open chute to ease the movement of the bats as they emerge for their evening hunting excursions. The chute is especially important for providing a fly-through space large enough to make the female bats, who require more area than the bar spacing, comfortable. Cave gate projects are costly and labor intensive, but necessary in cases where sensitive species are at risk of decline or even extinction due to human disturbance and even vandalism.

The Nature Conservancy would like to thank all of the dedicated volunteers from the National Speleological Society, the University of Tennessee-Knoxville, the Tennessee Wildlife Resources Agency, the U.S. Fish and

Wildlife Service, the Tennessee Division of Natural Heritage, and others who contributed time, muscle, and good humor to the project. This sucessful accomplisment truly lies in their hands. The Nature Consevancy is grateful to Mr. M.C. Davis, the Wallace Research Foundation, and the U.S. Fish and Wildlife Service for so generously providing the funding for this project.



The completed gate at Alexander Cave.

Meeting Summary ACCA Board of Directors June 10, 2006

Attending the meeting were: Jim Richards, President; Dave Derrick, Secretary; and Directors: Tom Aley, Julian Lewis, Dick Bell, Jim Middleton and Bernie Szukalski. Also in attendance were David Foster, Executive Director and Chris Clark, Program Coordinator. Tom Aley held a proxy vote for John Sagendorf. Jim Richards held a proxy vote for Dick Blenz. Dave Derrick held a proxy vote for Jim Nieland. Jim Richards held a proxy vote for Tricia Daugherty.

The minutes of the November 12, 2005 meeting were approved unanimously. In Old Business, Tom Aley reported that Emily Davis had appraised the Ray DeSaussure library donation at a value of \$106,000. Tom and Cathy Aley paid for the appraisal and noted that Emily had donated part of her appraisal rate. Tom made a motion to send Emily Davis a thank you for all her efforts involving the Ray DeSaussure library. Bernie seconded the motion and it passed unanimously.

In New Business, Dave reported that he and Chris Clark had helped the Tennessee Nature Conservancy re-gate Hubbards Cave and were planning a gate at Grigsby Cave in Virginia with funding from the U.S. Fish and Wildlife Service and the Virginia Department of Mines, Minerals and Energy. ACCA conducted a volunteer cleanup of a small cave pit near Glasgow, Kentucky in May. ACCA was seeking \$17,000 in grants from the Beneficia Foundation, Eastern Kentucky Pride and Bat Conservation International to clean up Saltpeter Pit Cave in Pulaski County, Kentucky. The Mammoth Cave Restoration camp has offered to help remove non-native plants from the Hidden River Cave entrance. ACCA also completed two teacher workshops in March as the final parts of a grant from the Kentucky Division of Water Nonpoint Source Branch. Attendance at the American Cave and Karst Center was slightly down but school groups were increasing. The renovation is awaiting approval from the National Park Service for historic tax credits. In an effort to build membership, ACCA presented programs at the SERA Winter meeting, the Carter Cave Crawlathon, the Kentucky Speleofest; and the summer SERA Cave Carnival.

Meeting Summary ACCA Board of Directors November 11, 2006

Attendance at the meeting included: Jim Richards, President; Dave Derrick, Secretary; and Directors, Tricia Daugherty, Tom Aley, Dick Bell, John Sagendorf and Jim Middleton. Jerry Lewis e-mailed his proxy vote to Jim Richards. Staff included Dave Foster, Executive Director,

Shannon Johnson, Administrative Assistant and guest Tony Moore.

The June 10, 2005 minutes were approved unanimously.

Dave Foster discussed a variety of conservation projects that ACCA undertook over the past summer season including: removal of alien vegetation from the Hidden River Cave entrance by the Mammoth Cave Restoration Camp; Assisting the Tennessee Nature Conservancy with re-gating Hubbard's Cave; Constructing a gate on Gray bat maternity site Grigsby Cave, Virginia with funding from the U.S. Fish and Wildlife Service; Assisting the U.S. Fish and Wildlife Service and the James Cavers with a restoration project at James Cave near Park City, Kentucky; conducting two volunteer cleanup projects at an unnamed cave near Glasgow, Kentucky; and conducting a major multiweek cleanup of Saltpeter Pit near Shopville, Kentucky. Dave reported that Saltpeter Pit has the 4th largest Rafinesque's big-eared bat population in the world. ACCA has already received pledges totalling \$50,000 to continue this cleanup in 2007.

Dave Foster reported on the progress with the renovation and expansion of the American Cave and Karst Center. Work was halted over the summer in order to process the administrative paperwork for historic tax credits and to await the announcement of additional funds for the project. The project's block grant specialist, Wil Linder, passed away earlier this year. His protege Bryan Kirby is now assisting us. Dave noted that Wil had been a good friend of the American Cave and Karst Center and his help had been critical with several of the institution's grants. Over the Summer, the ACCA applied for additional grant funding for the building construction from the Appalachian Regional Commission (ARC). Dave distributed a letter from the ARC which stated that \$400,000 had been approved for the American Cave and Karst Center project. Dave also reported on repairs to the ticket office and storage building and signage following a major hail storm last spring. The museum also has a new awning which was put in place in October.

In Old Business, Tom Aley discussed the Ray DeSaussure library donation and noted that there were multiple copies of many books. A motion to sell surplus books at the appraised value was unanimously approved. Tricia Daugherty reported on efforts to upgrade the membership system and plans to have the new database system completed by the end of the year. Horton Hobbs also reported by phone that Debra Silverman's contract for production of the magazine was being renegotiated.

In New Business, Jim Richards noted that he and Jerry Lewis had reviewed the website and noted the need to upgrade the site and correct bad links. The Board also

Contributors 2005 - 2006

\$100 - \$499:

Jim Adams John Asriel, M.D. Charles Bartlett, Ph.D. Denise & Dick Bell John & Susan Branstetter Robert D. Brown Sue and Sydney Bunnell **Bob Burnett** The Cleveland Grotto Desoto Caverns Park Robert Keith Dunlap Mrs. Myron Dunlavy Flittermouse Grotto Amanda Held Dorothy Foster Sandy & Jim Foster Dr. John P."Jack"Freeman Paul Gasek Steve Gentry Doug Gilb Greater Cincinnati Grotto Marc & Nancy Hafkin Dr. Francis G. Howarth Howe Caverns Mark Hult Charles & Ann Jett Arthur & Judy Lange National Caves Association Natural Bridge Caverns Donald & Peggy Nims Roy D. & Carole Powers John & Paula S. Ginger Schnaper Seneca Caverns

Dr. & Mrs. Stanley D. Sides Square Deal Lumber Company Albert W. Stewart John & Joan Strickler James & Barbara Sturgeon Bernard W. Szukalski University of Kentucky Extension Service Rev. Raymond Urbanek Frank & Anita Vlchek Wal-Mart of Glasgow, KY Karen Willmes Joye E. Wuest

\$500 - \$999:

Jerry Fant Fred Grady Dr. & Mrs. Philip LaMoreaux, Sr. Barry Nichols Roy D. Powers, Jr. Rotary Club of Horse Cave, KY

\$1,000 - \$4,999:

Anonymous
Bat Conservation International, Inc.
Earl Biffle
Richard Blenz
Bluespring Caverns
Bruce Herschend Trust
The Corrandino Group
Dave & Ann Derrick
Sandra Anne Frazier
Chuck Pease, Jr.
Judy Fair-Spaulding
Steve Sullivan

Ronald R. Van Stockum, Jr. U.S. Army Engineer Research & Development Waste Management Incorporated

\$5,000 - \$9,999:

Anonymous Gift Estate of Raymond deSaussure Mr. W. Austin W. Mussellman, Jr.

\$10,000 or more:

Beneficia Foundation
Ina Brown Bond Fund
Kentucky Tourism Matching Funds
Mr. & Mrs. Robert E. Danielson
Eastern Kentucky Pride
U. S. Fish and Wildlife Service
Virginia Department of Mines,
Minerals and Energy

Museum Founders:

Appalachian Regional Commission
James Graham Brown Foundation, Inc.
Mary & Barry Bingham, Sr. Fund
W.L. Lyons Brown Foundation
City of Horse Cave
Commonwealth of Kentucky
Community Development
Block Grant Program
The Dart Foundation
Environmental Protection Agency
Kentucky Bicentennial Commission
Kentucky Division of Conservation
Kentucky Division of Water
Tennessee Valley Authority

November 11 Meeting Summary Continued:

had a discussion regarding partnering opportunities with other nonprofit organizations. The board received notification that ACCA was the recipient of the Kentucky Association for Environmental Education's Organization of the Year award.

Dave Foster discussed the need to ratchet up our operating appeals to support the American Cave and Karst Center and our various conservation projects. A motion was made by Dave Derrick and seconded by Tom Aley to raise the admission prices for the American Cave and Karst Center to the following levels: Adult - \$15.00; Preteen (12 - 15 years) - \$10.00 and Child (3 - 11 years) - \$7.00. Group admission would be raised to \$10.00 per person. The motion was unanimously approved.

The Board went into closed session to discuss staff salaries. The spring meeting of the ACCA Board of Directors was scheduled for March 31, 2007.

Bob & Bob

"Cavers Serving Cavers Worldwide"

Suppliers of:

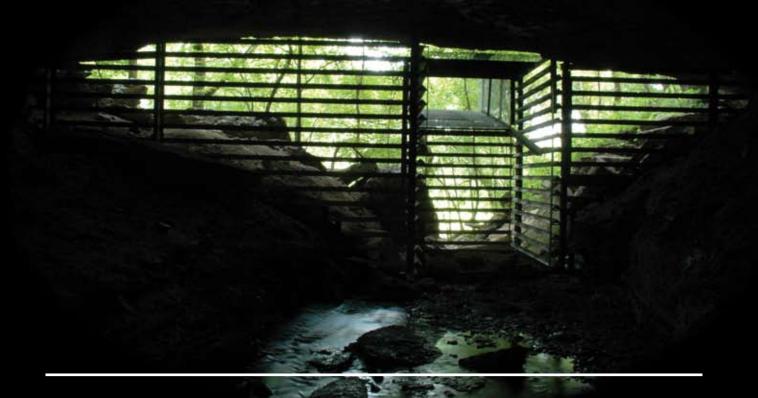
- Helmets
- Tubular Webbing
- Books and Videos
- Gibbs Ascenders
- Cave Packs
- Racks and Brakebars
- Carabiners
- Climbing Systems
- Jumars

- Knee Pads and Gloves
- PMI Rope and BW Rope
- Petzl Gear
- Harnesses
- Canvas Grip
- Compasses and Clinometers
- Electric Lights
- Repair Parts and Bulbs
- T-Shirts and much more

For your free price list, write or call:

Bob & Bob P.O. Box 441-C Lewisburg, WV 24901 304.772.3074 304.772.3076 fax

800.262.2283



American Cave Conservation Association P.O. Box 409 Horse Cave, Kentucky 42749

Change Service Requested

BULK RATE U.S. Postage PAID Horse Cave, KY 42749 Permit No. 61