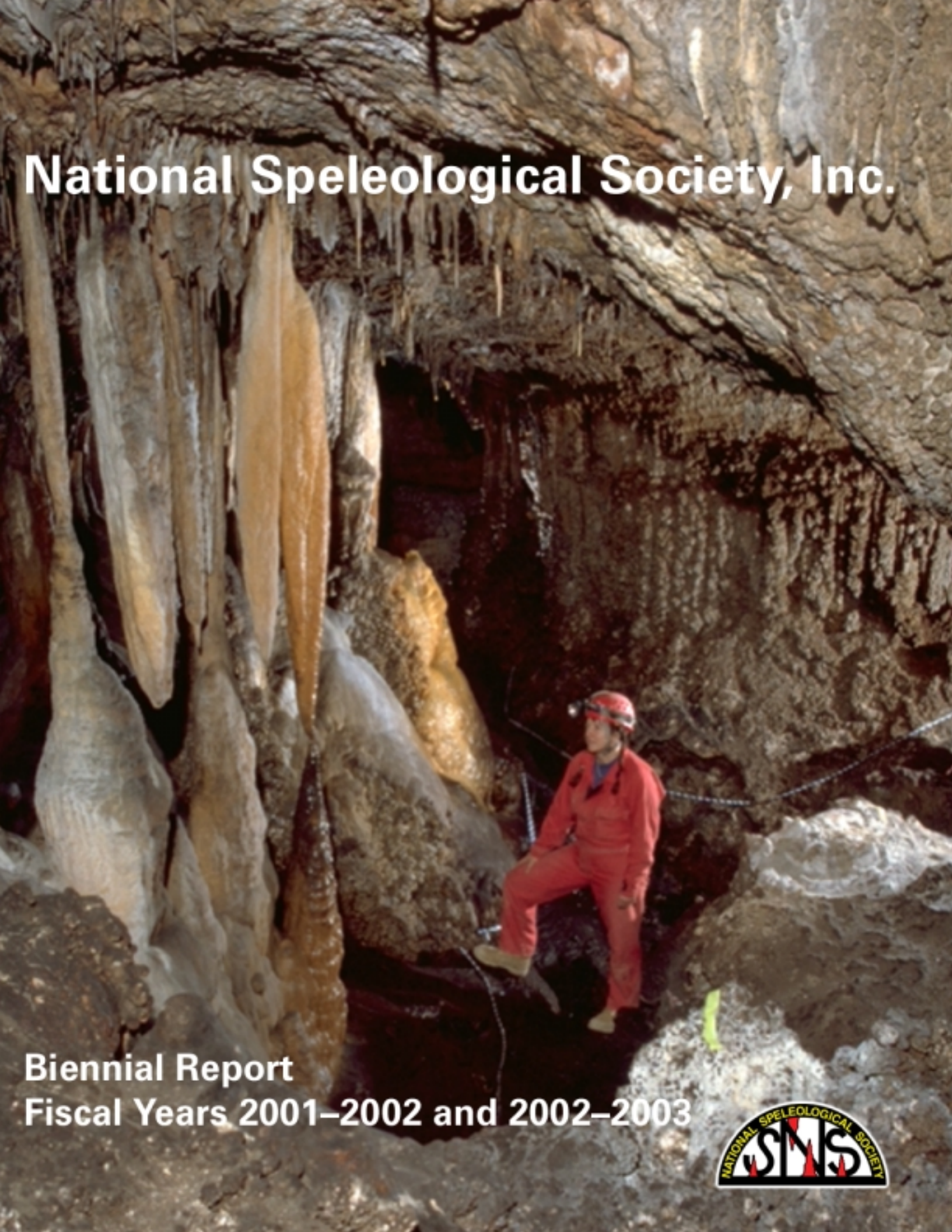


National Speleological Society, Inc.

Biennial Report
Fiscal Years 2001–2002 and 2002–2003

What is the NSS?

The National Speleological Society has three goals:

To protect caves and their natural contents,

To advance the study of caves and the science of speleology, and

To promote safety and fellowship among cavers.

The NSS is the largest cave-related organization in the world. We have over 12,000 members—scientists, conservationists, cave owners, and cave explorers—throughout the United States and abroad. The Society was founded in 1941 and is headquartered in Huntsville, Alabama. The NSS is affiliated with the American Association for the Advancement of Science and the *Union Internationale de Spéléologie*.

NSS volunteers donate countless hours toward cave conservation, cave science, and safe cave exploration. Membership in the Society is open to anyone who shares our goals.

The NSS is a non-profit corporation and is tax exempt under Section 501(c)(3) of the Internal Revenue Code. Contributions to the Society are tax deductible to the full extent allowed by law.

Contents

A Letter from the President

NATIONAL SPELEOLOGICAL SOCIETY, INC.

Office of the President
Scott Fee
2813 Cave Avenue
Huntsville AL 35801-4431

DEDICATED TO THE EXPLORATION, STUDY, AND CONSERVA-

Dear Reader,

For over 60 years, the goals of the National Speleological Society (NSS) have been "to promote interest in and to advance in any and all ways the study and science of speleology, the protection of caves and their natural contents, and to promote fellowship among those interested therein." I am pleased to say that the Society made great strides towards these goals in fiscal years 2001-2003, thanks to our members and dedicated volunteers.

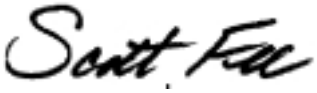
Through acquisition and by providing grants, the Society continued its program of protecting significant cave systems and their contents for future generations. In 2003, we purchased Great Expectations Cave, Wyoming, the third deepest limestone cave in the United States. This is the Society's second cave property west of the Mississippi, and our first in alpine karst. A very successful fundraising drive raised nearly half of the acquisition cost, and we expect to be able to cover the remaining amount with contributions from our members. Thanks to a generous donation, we also acquired Wells Cave, one of Kentucky's longest and finest recreational caves, with important biological and geological features. Taking further steps to protect caves, the Society awarded $10,000 in grants to regional cave conservancies for cave and karst acquisition.

NSS members continued to add greatly to the knowledge of karst, caves, and cave environments by discovering and surveying new caves and cave passages, documenting cave flora, fauna, and artifacts, and conducting speleological research. To support this important work, the NSS awarded thousands of dollars in grants for research, exploration, and conservation.

The Society advanced caving safety with the publication of *American Caving Accidents,* as well as *On Call*, the foremost book on cave rescue techniques. In addition, the National Cave Rescue Commission conducted cave rescue courses around the country, at all skill levels, to cavers as well as non-caver technical rescue teams.

The continuing strength and success of the NSS comes from our members, who volunteer countless hours each year in support of the Society's goals. It is these dedicated individuals, with their passion for speleology, exploration, and conservation, who have made us what we are today. This report documents two years of their accomplishments. I am honored to serve as their leader.

Sincerely,
Scott Fee, President



National Speleological Society, Inc.

AFFILIATED WITH THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SICENCE

Protecting Caves and Their Natural Contents

The most visible reasons to protect caves are the delicate and beautiful rock crystal formations (like stalactites and stalagmites) they often contain. Indeed, visitors to commercial caves only see a fraction of the beauty that exists underground.

But caves are also home to unique creatures, including some endangered species. For example, cave-dwelling bats can eat tons of mosquitoes and other pests in a single evening. Scientists are excited about other forms of cave life—even bacteria—which have adapted to survive in extreme conditions, because they may hold the key to the development of new medicines. The survival of all these creatures depends upon maintaining the cave ecosystem.

For individuals and communities in karst regions (where limestone and similar bedrock often forms caves), cave conservation has a very direct benefit: improved water quality. In karst areas, sinkholes often lead to cave passages, to underground rivers, and into the underground aquifers that supply the drinking water. Polluted runoff into caves is especially dangerous because it frequently leads to drinking water pollution. In these regions, the unexpected collapse of the surface (along with any buildings above) can be triggered by drought and groundwater depletion, or by excessive runoff from over development.

Some caves are important because they preserve evidence of historic or prehistoric visitors—sometimes human and sometimes animal.

For all these reasons and many more, the NSS is working to protect our caves. Sometimes, cave conservation is as straightforward as cleaning trash out of a cave. Just as often, however, the NSS works to educate land owners and make public officials aware of the importance of the caves under their feet and of how fragile the cave environment is.

Conservation Task Forces

The NSS has chartered Conservation Task Forces specifically to deal with conservation issues in these areas:

- Central Oregon
- Hawaii
- Sloans Valley, Kentucky
- The Teton Mountains, Idaho and Wyoming
- Klamath Mountains, California
- Daniel Boone National Forest, Kentucky
- Mount Adams region, Washington
- Peppersauce Cave, Arizona

Cave Restoration and Protection: Shelta Cave, Alabama

The Society's headquarters in Huntsville, Alabama, sits atop Shelta Cave, a particularly important cave because it contains several endangered species. For example, Shelta Cave is the only place in the world where a species of crayfish, *Orconectes sheltae*, lives.

Thirty-five years ago, vandalism and increasing human traffic threatened the cave's ecology. The NSS decided on a radical experiment: it created a cave gate from an old jail cell door and installed it on the entrance in 1968. The vandalism stopped, but the endangered gray bats that had inhabited the cave would not fly through the bars. With the bats gone, their guano no longer supplied food for the other species that lived in the cave, and those other species nearly disappeared. A new gate design in 1981 was supposed to encourage bats to return, but things did not improve. Unlike most bat species, it appears that gray bats are particularly skittish about cave gates.

In 2002, the NSS used grant money from the U.S. Forest Service and Bat Conservation International to remove the gate and instead erect a fence around the entire sinkhole entrance in its place. A generation ago, Shelta Cave taught the world that bat cave gate design was critical. Now, it may teach us about gray bat habitat.

Protecting Caves and Their Natural Contents: Cave Restoration and Protection

The front lines of cave conservation are in the sinkholes and caves themselves: cleaning up trash, restoring broken formations, or perhaps installing entrance gates to help regulate human visitation to particularly sensitive caves. NSS members spend countless hours every year working on these projects, which are too numerous to mention. Private cave owners, governments, and conservation organizations all rely upon the NSS's ability to muster dedicated, specialized volunteer help.

Volunteer Training

The NSS conducts workshops and meetings to teach the specialized techniques required to work in caves. A forum on cleaning cave graffiti (without harming stalactites and stalagmites) was held at the NSS' 2002 national convention in Maine. Restoration workshops were held at the 2001 national convention in Kentucky and at Karchner Caverns State Park, Arizona, in April 2002.

Peppersauce Cave, Arizona

Peppersauce Cave in the Coronado National Forest, Arizona, was a pristine underground wilderness with dozens of insect species living inside when a popular 1948 magazine published exact directions to the cave. As a result, this undeveloped, wild cave quickly became one of the most heavily visited—and most heavily vandalized—caves in the world.

Using grant money from the State of Arizona and the Environmental Protection Agency, the NSS is working to restore Peppersauce to the extent possible. The Society has donated over $100,000 worth of volunteer effort to remove graffiti and help decontaminate pools of water in the cave. The NSS is working with the Coronado National Forest to erect an information kiosk nearby.

Designing Bat Cave Gates

A cave-dwelling bat can devour hundreds of mosquitoes and other insects every hour, every night of the summer. But bats are particularly susceptible to human disturbance when they are hibernating or nursing their young in caves. That's one reason why the NSS has embraced the use of gates on the entrances of certain caves to regulate human traffic.

A bat cave gate must be designed precisely. The openings must be small enough that people cannot crawl through, yet big enough for a bat to find using echolocation.

The NSS is part of a nationwide steering group on bat cave gating that includes the federal and several state governments, Bat Conservation International, and other conservation groups. In March 2002, the group met in a technical forum in Austin, Texas. The information presented at this meeting represents the nation's best source of information about bat cave gating.

Huccacove Cave, Colorado

Huccacove Cave was Colorado's first commercial cave when it opened to tourists in 1875. When vandals broke into the cave in 2002 and spray painted the walls in a pristine passage, the Williams Cañon Project of the NSS developed innovative techniques to remove the damage.

Cave Conservation Grants

The NSS supports extraordinary cave conservation projects through a modest grant program. Among the projects supported in the past two fiscal years were:

- a study and inventory of the caves along the proposed route of interstate highway I-66 in Kentucky;
- a cave gate design forum in Texas;
- a study comparing bats' responses to gates at entrances versus gates farther inside caves and mines;
- creation of educational materials about land development on karst terrain;
- a study of public reaction to the designation of underground wilderness areas;
- installation of an information kiosk near a popular lava tube cave in Hawaii.

Protecting Caves and Their Natural Contents: Cooperation with the Federal Government

The NSS is not alone in realizing the importance of cave conservation. But as the largest cave conservation organization in the world, the NSS is unique in its ability to provide knowledge, expertise, and manpower to the federal government and others. Together, we have a track record of successful conservation, restoration, education, and advocacy for caves and the creatures that live in them.

The United States government is an invaluable partner in our work. The federal government owns countless caves, and they are the principal conservator of our nation's wildlife and environment. The NSS maintains memorandums of understanding on common areas of concern with the National Park Service, the U.S. Bureau of Land Management, the U.S. Forest Service, the U.S. Fish and Wildlife Service, and the Tennessee Valley Authority.

U.S. Bureau of Land Management

The NSS provided guest speakers at the BLM's Cave Management Workshop in Carlsbad, New Mexico.

National Park Service

The NSS concluded a unique arrangement with Mammoth Cave National Park in which the NSS removed "improvements" made during the 19th and early 20th century from deep within the cave. The Society is also working with the Park Service to decide how to restore microclimates within Mammoth Cave to encourage bats to return to the cave.

The Society worked with National Park Service interpretive rangers in five regions to train NSS volunteers to teach elementary and secondary school classes about caves and karst. Using materials supplied by the National Park Service, the teachers reached thousands of schoolchildren.

The NSS conducted a special cave rescue orientation seminar for Wind Cave National Park, South Dakota.

U.S. Army Corps of Engineers

Along with The Nature Conservancy and other organizations, the NSS helped the Corps in an unprecedented three week campaign to place bat-friendly gates on seven entrances into the Dud–Haile Cave System in Tennessee.

USDA Forest Service

The Society successfully concluded a years-long struggle to convince USDA Forest Service land managers from the Deschutes National Forest in Oregon to change their management of Road 18 Caves. Among other problems from over use, cave explorers were disturbing sensitive bat species, and the placement of bolts and use of hand chalk by rock climbers was threatening prehistoric rock art on the cave walls.

In Cornonado National Forest in Arizona, NSS members are working to reverse decades of vandalism at Peppersauce Cave.

The NSS conducted a cave conservation seminar for Lincoln National Forest personnel in New Mexico.

U.S. Fish and Wildlife Service

The Society helped the U.S. Fish & Wildlife Service, the Nature Conservancy, and the state of Vermont develop a management plan for a Vermont cave that is one of the largest bat hibernacula in New England.

U.S. Fish & Wildlife Service was one of many groups with which the NSS formed a task force to study the design of bat cave gates.

Protecting Caves and Their Natural Contents: Cooperation with States and Private Organizations

State and local governments mirror the federal government's concerns for cave conservation. The NSS offers them its knowledge and expertise to help form and implement sensible policies concerning caves.

The NSS also works hand-in-hand with conservation organizations on a variety of cave conservation activities, both locally and nationwide. We maintain memorandums of understanding with The Nature Conservancy, Bat Conservation International, the American Cave Conservation Association, and the Karst Waters Institute.

State Governments

The NSS' Hawai'i Caves Conservation Task Force worked with the Hawaiian legislature to craft a statute that tried to balance conservation, science, recreation, and the religious beliefs of native Hawaiians.

The Tennessee Wildlife Resources Agency, along with the NSS, the U.S. Fish and Wildlife Service, and The Nature Conservancy, is developing a unique conservation plan to preserve cave-dwelling species (for example, blind fish and insects) before they reach the brink of permanent extinction.

The Arizona Department of Environmental Quality and the U.S. Environmental Protection Agency are working with the NSS to clean up Peppersauce Cave.

Bat Conservation International

The NSS and Bat Conservation International worked together to study microclimates in Vermont caves which serve as bat hibernacula.

Bat Conservation International and the NSS together revised their public information brochure, *Bats Need Friends*.

NSS members assisted Bat Conservation International founder Merlin Tuttle in surveying the endangered gray bat population in caves in Tennessee and Alabama.

The Nature Conservancy

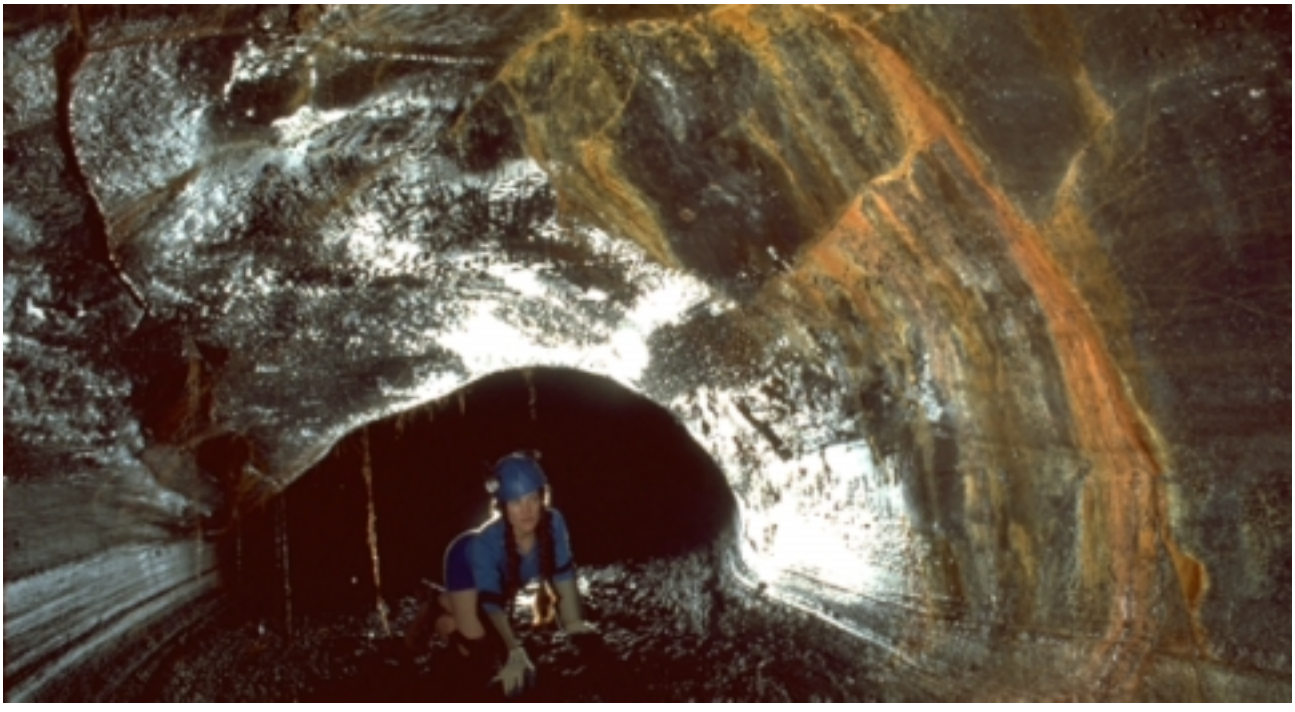
The Nature Conservancy and the NSS have been partners in cave conservation for decades. The Nature Conservancy owns may important caves which the NSS helps manage. For example, in Tennessee, local NSS chapters help The Nature Conservancy study and manage Hubbards Cave and Yell Cave.

The NSS and The Nature Conservancy, along with the government of Vermont and the federal government, are monitoring microclimates in several Vermont caves which are important bat hibernacula.

Boy and Girl Scouts

NSS members lead countless Scouting trips into caves every year. These trips afford a wonderful opportunity to teach youngsters about caves and cave conservation.

The Society is testing a pilot cave training program with the Boy Scouts and Girl Scouts in Utah and Texas.



Protecting Caves and Their Natural Contents: Educating People about Caves

Public education is a vital part of our cave conservation program. Ignorance about caves and karst geology often leads to groundwater pollution, to inappropriate land use, and to irreparable harm to the cave ecology. By educating the public and those who make the decisions about how to use the land above caves, the NSS hopes to raise awareness of these issues.

Over the past two decades, concerned groups made the public aware of how important wetlands are. The NSS wants to do the same for caves. The Society is trying to make land owners, institutional land managers, schoolchildren, and the public as a whole all aware that caves are not just tourist attractions. Like wetlands, caves are very fragile places that we have to protect if we want clean water and a naturally functioning ecosystem.

Public Outreach

The NSS cooperated with the Smithsonian Museum of Natural History to produce a traveling photo exhibit titled *Caves: A Fragile Wilderness*.

The "learn about caves" page at the NSS's award-winning Web site, http://www.caves.org, gets thousands of hits.

The Society's *Discovering Caves* series of brochures are available free of charge in both printed and electronic versions. Titles include *Bats*, *Fragile Underground*, and *Lava Tubes*. Downloads of these brochures are extremely popular, sometimes topping 300 per day.

The NSS booklet, *A Guide to Responsible Caving*, was completely revised and reprinted in 2002.

Journey into Amazing Caves

When the leading producer of IMAX films wanted to make a film about caves, the NSS helped to make sure the public got not only accurate information, but a conservation-oriented message as well. The film, *Journey into Amazing Caves*, premiered in March 2001.

The NSS' involvement has continued as the film tours IMAX theatres across the country. Local NSS chapters answer questions, provide literature, and give demonstrations at showings of the film. Nationally, the Society continues to field requests for information that the film has generated from the public and news media alike.

Project Underground

Project Underground was created seven years ago by the NSS members to train schoolteachers and provide them classroom materials to teach about caves and karst. The Society provides Project Underground with training facilities and financial assistance. With additional support from the National Park Service and the American Cave Conservation Association, Project Underground continues to make a difference in our schools.

National Park Service Cave Education Initiative

The NSS, Project Underground, and the American Cave Conservation Association together received a grant from the National Park Service to train two dozen NSS volunteers in each of five regions (Virginia, Kentucky, Colorado/South Dakota, New Mexico/Arizona, and Oregon/Northern California). The volunteers then spent the 2001–2002 school year teaching cave and karst programs for grades K–12.

The NSS also helped the Park Service create an educational children's video about caves.

General Interest Cave Books

The NSS maintains the largest cave bookstore in the world, and it offers the largest selection of cave books available anywhere. The bookstore also distributes free educational literature about caves.

In 2003, the Society published its first children's book, *The Hidden World of Caves*, written by Ronal Kerbo of the National Park Service.

The American Geological Institute's publication, *Living With Karst: A Fragile Foundation*, produced with NSS financial and editing support, won an award at the International Congress of Speleology's 2001 quadrennial meeting as one of the best speleological publications in the past four years.

Media Relations

Whether it be questions about Osama Bin Laden's hideouts, a sinkhole that swallowed a building, or the discovery of a cave never before seen by man just outside a major city, the news media rely on the National Speleological Society for accurate information about caves.

For example, the NSS helped National Public Radio journalist Daniel Grossman produce a segment on cave biology for the radio program, *The DNA Files*, which won a prestigious Peabody Award for 2001. In 2002, Public Broadcasting Service's award winning science program, *NOVA*, aired a program titled *The Mysterious Life of Caves* that featured an NSS project to study the caves of Tabasco, Mexico.

Protecting Caves and Their Natural Contents: Encouraging Sensible Public Policy

Where there are threats to caves on a regional scale, the NSS works to educate well-intentioned policymakers who may not realize what a resource they have (quite literally) just under their feet. Even when they know where caves have been found, policymakers often have no idea how important and sensitive those caves may be.

Ebay Auction Policy

The NSS opposes the sale of cave formations (like stalactites and stalagmites) because the market for such formations encourages vandals to deface caves. In 2001, the Society succeeded in getting eBay and Yahoo to prohibit the auction of most cave formations. The Society also discourages "rock shops" from handling similar sales.

Kentucky TriModal Transpark

NSS members are working to improve a proposal for a 1,200-acre industrial park outside the border of Mammoth Cave National Park in Kentucky. In addition to the industrial park, plans for the "trimodal transpark" call for a new airport, a new highway, and a new rail line. It promises to be an important economic engine for the region.

But the site is sensitive to development because it is pockmarked with sinkholes which lead to caves which are in turn connected to underground aquifer beneath the longest cave in the world, Mammoth Cave. There is a potential that increased runoff from the development entering and polluting the underground environment. Increased runoff could also cause surface collapses, damaging buildings and other infrastructure.

NSS members on both sides of the controversy are working to assure that, if the transpark is completed, the effect on the caves and on the underground environment is minimized.

Cave Inventories

Where a large development project is proposed in a karst area, NSS members often conduct an inventory of the area's caves and cave resources. Without such an inventory, neither the NSS nor the decision makers can know if underground resources are at risk.

Inventories often go far beyond merely locating caves and cave passages. They typically include mapping the caves and may include studies of the animal and insect populations present in the caves, hydrologic studies to understand where underground water comes from and goes to, and geologic studies.

Sloans Valley Cave, Kentucky

Sloans Valley Cave is 26 miles long and fantastically diverse. For example, among the rare and endangered species in the cave is a large population of blind crayfish that live only in caves.

The NSS formed the Sloans Valley Conservation Task Force to address several potential threats to the cave from a nearby landfill, a second planned landfill, a water reservoir that backfloods parts of the cave, highway widening overhead, and a rails-to-trails project that will funnel thousands of people past several entrances.

The Task Force is developing a 3-D GIS model of the cave to model water levels, the mixing of cave streams with reservoir water, siltation, landfill runoff routes through the cave, and airflow patterns.

Geo-Caches in Caves

Geo-caching is a relatively new and immensely popular recreational activity similar to orienteering. People get the coordinates of a cache hidden somewhere in the great outdoors from the Internet and then use a GPS receiver to find the cache.

The NSS is concerned about the publication of geocache locations at cave entrances. Often, the only protection a particularly fragile cave might have from human visitors is the fact that its location is unpublished. Increased traffic to caves may also damage delicate landowner relations built up through decades of trust. Some geo-cachers may also be encouraged to enter caves without proper training or equipment. The NSS is developing a policy that properly addresses these issues.

Protecting Caves and Their Natural Contents: Aid to Cave Owners

Owning a cave brings with it the extra responsibility of caring for the underground resources (like clean water, like mosquito-eating bats, or like a great place to enjoy exploring).

Cave owners have to deal with competing pressures: pressure to develop the surface and potentially harm the cave, pressure to let spelunkers visit the cave, or pressure to avoid the problem by simply bulldozing the entrance.

The NSS tries to make it easier for cave owners—private individuals, government agencies, and conservation organizations—to do the right thing.

Landowner Defense Fund

Several years ago, a generous Tennessee landowner with a long history of letting the public explore her cave was sued when a boy (not an NSS member) fell inside her cave and died. What began as a private collection to help offset the landowner's legal bills has blossomed into the NSS' landowner defense fund. The fund is designed to encourage landowners to allow the public to visit their caves.

Many states have passed landowner liability statutes that say landowners should not normally be liable for injuries that hunters, hikers, and cave explorers suffer on the landowner's property. The lawsuit against the Tennessee landowner was dismissed because of one of these laws.

Helping Make Cave Acquisitions Possible

The NSS makes modest grants for conservation organizations to acquire important caves. In these two fiscal years, the Society supported the Northeastern Cave Conservancy's purchase of a cave which is hydrologically connected to the Society's own McFails Cave Nature Preserve in New York, and the purchase by the West Virginia Cave Conservancy of a critical entrance to a 25-mile-long cave which is listed as one of the world's top ten endangered karst ecosystems by the Karst Waters Institute.

Cave Management Assistance

The NSS' Central Oregon Caves Task Force has signed an agreement to help the Deschutes National Forest help manage caves in the Bend–Fort Rock Ranger District. The task force has previously helped shape the U.S.D.A. Forest Service's conservation policies toward several significant caves in Oregon.

The Society held a symposium on cave management for nonprofit organizations at its national convention in Maine in 2002.

The NSS' Klamath Mountains Conservation Task Force worked with the Klamath National Forest in Oregon to develop a management plan for Marble Mountain Cave.

Vandalism Deterrence Reward

The Society maintains a standing offer of a reward, up to $1,000, for information leading to the conviction of anyone for vandalizing a cave. Although no claims were paid in these two fiscal years, several claims are currently under investigation.

Cave Management Symposia

To help governments and other organizations that own caves, the Society brings together the nation's experts in the field to discuss common issues. In addition to symposia at the NSS annual national convention, the NSS co-sponsored the 15th biennial National Cave Management Symposium in Arizona in 2001.

Protecting Caves and Their Natural Contents: Cave Ownership and Management

The NSS appreciates the pressures on cave owners because the NSS owns caves, too.

NSS Nature Preserves

The NSS owns or manages twelve extraordinary nature preserves throughout the country. Although none is developed as a show cave, which caters to tourists, each is important for another reason—geologically, biologically, paleontologically, historically, or recreationally.

For example, the Donald R. Russell Nature Preserve in Oklahoma was donated to the NSS to help preserve endangered bat species. One cave at the preserve is home to as much as a third of the known population of one such species of bat. Recently, the Sam Noble Museum of Natural History helped study rare fossils of a pleistocene tapir discovered at the preserve.

The Kingston Saltpeter Cave Nature Preserve in Georgia is managed by the NSS for the Felburn Foundation. In the ice ages, animals lived there. (The University of Tennessee houses the cave's fossil collection.) During the Civil War, the cave was mined for Saltpeter. During the Great Depression, the cave was open to tourists. Today, the cave is the focal point of a unique nature preserve, and with help from the Weinman Museum, the NSS makes it available as a geological classroom for Georgia's school teachers.

The Society's Newest Preserves

During these two fiscal years, the Society added two new nature preserves. Wells Cave Nature Preserve, Kentucky, has been a popular recreational cave but is also geologically and biologically significant. It was generously donated to the Society by Mr. James Helmbold. The second new preserve, Great Expectations Cave in Wyoming, is described in the sidebar.

The Society's Other Preserves

The other NSS Nature Preserves are:

- Mill Creek Sink, Florida
- Barton Hill, New York
- Shelta Cave, Alabama
- John Guilday Caves, West Virginia
- McFails Cave, New York
- Schoharie Cave, New York
- Tytoona Cave, Pennsylvania
- Warren Cave, Florida

Cave Conservancies

The Society charters local cave conservancies throughout the nation. These conservancies own or manage caves for conservation purposes:

- Appalachian Cave Conservancy (Tennessee, Virginia)
- Butler Cave Conservation Society (Virginia)
- Carroll Cave Conservancy (Missouri)
- Great Saltpetre Cave Preserve (Kentucky)
- Cave Conservancy of Hawaii
- Karst Conservancy of Illinois
- Indiana Karst Conservancy
- Mid-Atlantic Karst Conservancy (Pennsylvania, West Virginia)
- New Jersey Cave Conservancy
- Northeastern Cave Conservancy (New York)
- Pennsylvania Cave Conservancy
- Texas Cave Conservancy
- Texas Cave Management Association
- West Virginia Cave Conservancy

In addition, the following cave conservancies are institutional members of the NSS:

- Cave Conservancy of the Virginias (Virginia, West Virginia)
- Michigan Karst Conservancy
- Missouri Cave Conservancy
- Southeastern Cave Conservancy (Alabama, Florida, Georgia, Kentucky, Tennessee, West Virginia)

Cave Ownership and Management: Great Expectations Cave Nature Preserve, Wyoming

The Society acquired Great Expectations Cave in Wyoming by purchase when it became available early in 2003. "Great X" is over 8 miles long and is the third-deepest limestone cave in the United States. It contains an underground room nearly half a mile long and over 100 feet high. The property borders federal land on three sides, including the Bighorn National Forest.

This extraordinary cave and the surrounding area exhibit one of the finest examples of alpine karst in the nation. The upper entrance is at an elevation of 8,500 feet in the Big Horn Mountains. Trapper Creek sinks into the entrance and emerges again six miles down Trapper Canyon at the Great Exit, which is on land owned by the federal Bureau of Land Management. Cavers making the trip underground must travel through the 1,500-foot-long "Grim Crawl of Death."

Studying Caves and Speleology

Caves remain one of the last frontiers on earth to for man to explore and study. NSS members almost routinely discover places where humans have never set foot before, even just a few hours drive from this country's major metropolitan areas. Part of the NSS' work is to catalog and inventory caves, which helps landowners make intelligent land use decisions.

The scientific study of caves and karst, called speleology, combines the expertise of many different disciplines: biology, geology, hydrology, paleontology, and archeology to name a few. Speleology promises not just academic knowledge, but more direct benefits like cures for human disease and cleaner drinking water. The NSS supports speleological research through grants and publications, and the NSS is closely involved with the federal government's new National Cave and Karst Research Institute.

Promoting Speleological Research: Working with the National Cave and Karst Research Institute

Congress created the National Cave and Karst Research Institute in 1998. Like similar institutions in other nations, and like the NSS, the Institute is chartered to coordinate and facilitate the science of speleology, promote speleological education, encourage cave and karst conservation, promote environmentally-sound land management, and serve as a repository of information about caves. The Institute is funded by federal government appropriations on a matching basis with other contributions.

The Institute appointed its first permanent director, noted speleologist Dr. Louise Hose, in 2002. Dr. Hose is an NSS member and formerly served as a director of the Society. Immediately before her appointment, Dr. Hose was the editor-in-chief of the Society's scientific journal, the *Journal of Cave and Karst Studies*.

Although the National Cave and Karst Research Institute is still in a ramp-up phase, the Institute and the NSS are already working closely together. Institute helped fund the publication of the NSS book, *Cave Conservation and Restoration.* The NSS is helping author a "white paper" to provide an intellectual framework to aim the Institute toward obtaining its required matching funds from the speleological community. The NSS and the Institute are negotiating for the potential loan of certain NSS library materials to the Institute headquarters in Carlsbad, New Mexico.

Studying Caves and Speleology: Promoting Speleological Research

Although not a research institution itself, the NSS is keenly interested in promoting the study of speleology by academics and other qualified researchers. (NSS-sponsored cave research directed toward conservation is described elsewhere in this report.)

Journal of Cave and Karst Studies

The NSS publishes its peer-reviewed, multidisciplinary scientific journal, the *Journal of Cave and Karst Studies*, three times annually. With an advisory board of world-renown speleologists, the *Journal* is the premier English language publication concerning cave science. The *Journal* is indexed in the Thompson ISI Science Citation Index Expanded database, making it an important tool to facilitate cave research.

To encourage an awareness and appreciation for speleological research among cavers outside academia, the NSS distributes the *Journal* to all regular members of the Society.

In April 2002, the *Journal* published a special issue titled *Cave and Karst GIS* describing the use of geographic information systems to model caves and karst regions. In April 2003, the *Journal* published papers from the Conference on Lava Tubes and Ground Water Pollution held in Hilo, Hawai'i, in 2000.

NSS Research Grants

The NSS makes research grants in the natural sciences, social sciences, and humanities. The Society's conservation grant program also sponsors research specifically related to cave conservation. Research grants in these two fiscal years included:

- a comparison of hydrology of karst and non-karst basins in Kentucky;
- cave sedimentation;
- cave use in Malaysia;
- caves in the Grand Canyon;
- mist-netting cave bats in Panama;
- ecology of a cave in Grand Canyon National Park;
- atmospheric CO_2 and the landscape of the South China karst;
- sulfur-based ecosystems in caves;
- micromammal faunas in the northern Urals, Russia;
- biologic effects on mineral formation in sulphidic caves;
- ancient Maya cave use; and
- the West-central Florida aquifer.

NSS Fellowships

The Society awards the Ralph W. Stone Research Grant each year to a graduate student studying cave or karst science.

For academic year 2001-2002, the fellow was Jean Krejca of the University of Texas, Austin, for her proposal, "Genetic Relatedness of Stygobites as a Tool for Determining Aquifer Connectedness." For 2002–2003, the fellow was Darlene Anthony of Purdue University for her proposal, "Late Tertiary Development and Quaternary Abandonment of Large Caves Along the Western Cumberland Escarpment, Tennessee and Kentucky, in Response to Regional River Entrenchment Across Unglaciated Appalachian Plateaus."

Speleological Work in the Arts and Humanities

Although the natural sciences dominate Speleology, the NSS also supports work in the arts and humanities.

For example, the American Spelean History Association is an official section of the Society and publishes the *Journal of Spelean History*. In June, 2001, the *Journal* published a special issue on the life and death of Floyd Collins, who died in a cave entrapment media spectacle in 1925, and whom many consider the greatest cave explorer who ever lived.

The Society has established a Spelean Arts and Letters Award to recognize excellence in cave-related artistic expression, management, or criticism.

Promoting Speleological Research: Dating Cave Sediments

Darlene Anthony is a PhD candidate at Purdue University. Her research was partially sponsored by an NSS fellowship in the 2002–2003 academic year.

Ms. Anthony is investigating the rates at which hillsides erode and rivers become entrenched in the Ohio River Valley over the past two million years. Quartz-containing sediments are left in some cave passages by underground streams. Later, erosion may divert the stream, leaving the cave passages "high and dry" and leaving these sediments undisturbed over geologic time scales. Because they are shielded from cosmic radiation, certain isotopes of aluminum and beryllium in the sediments radioactively decay at different rates. The differential rate of decay allows Ms. Anthony to determine when the sediment was deposited, which is evidence of the elevation of surface rivers at that time. This kind of research may eventually allow scientists to more accurately model landscape erosion or date cave passages, both of which may have profound implications.

Studying Caves and Speleology: Exploration and Documentation of Caves

Speleology remains one of the few sciences where laymen routinely add to mankind's knowledge of the world. With only a little training, amateur cavers—who make up the bulk of the NSS's membership—regularly discover and map new caves, discover new cave passages in known caves, and document the animal life and contents of caves around the nation. These projects are too numerous to mention, but without this important work, the professional academics (biologists, geologists, hydrologists, paleontologists, and the like) would be unable to do their work.

NSS Exploration Grants

The NSS makes modest grants for cave exploration, both in the United States (from the Sara Corrie Memorial Fund) and abroad (including grants to study Mexican caves from the former Joe Ivy Fund). During the past two fiscal years, the Society awarded grants for:

- purchase of cave survey gear for use by a Tennessee cave survey group;
- locating and documenting caves in the Cascade Mountains of Washington State;
- an expedition to India;
- exploring Coldwater Cave, the longest cave in Iowa;
- the inventory of caves along a proposed interstate highway route in Kentucky;
- exploration of halite caves in northern Chile;
- exploration of caves in western Mexico and Oaxaca, Mexico; and
- exploration of anoxic caves in Florida.

Fighting Terrorism

When Osama Bin Laden was rumored to be hiding in caves in Afghanistan, the NSS library provided the U.S. military with information about caves in that country. (In fact, most of those "caves" turned out to be man-made tunnels.)

Underwater Cave Exploration

The NSS Cave Diving Section is the largest cave diving organization in the U.S. These highly trained and safety conscious experts expand our knowledge of Florida spings, high altitude sumps in the West, sea caves along both oceans and the great lakes, and the cold, murky sumps deep inside the caves of the Northeast.

NSS Cave Projects

Large, long-term cave exploration and documentation projects may be granted status as an official NSS project. They include:

- studying Lost River Cave, Indiana;
- paleontological studies of Virginia caves;
- studying caves along the canyon of Rio La Venta, Chiapas, Mexico;
- mapping caves on Mona Island, Puerto Rico;
- monitoring and documenting caves formed in the Mount Rainier glacier by volcanic steam vents;
- exploring cave sumps using specialized diving techniques in the northeast U.S.;
- studying caves in Tabasco, Mexico;
- exploring gypsum caves in the southwest U.S.;
- exploring and surveying of some of the deepest caves in the hemisphere in Oaxaca, Mexico, which are approaching a mile in depth;
- surveying the Roppel portion of Mammoth Cave, Kentucky;
- studying Scott Hollow Cave, West Virginia; and
- indexing published cave passage descriptions into a single database.

Williams Cañon, Colorado

The NSS's Williams Cañon Project in Colorado published a book, *Caves of Williams Cañon*, in 2002. Conservation projects by the group included repairing vandalism to Huccacove Cave and restoring areas of the commercial Cave of the Winds. The group also repaired the Williams Canyon Road which was destroyed by flooding in 1999.

NSS Cave Surveys

NSS Cave surveys coordinate the systematic exploration and inventory of caves over large geographic areas. Surveys are active in Alabama, Colorado, Georgia, Hawai'i, Idaho, Indiana, western Kentucky, Missouri, Tennessee, Texas, Virginia, and West Virginia. The NSS has documented over 25,000 caves in the United States.

Aerial Survey of Idaho Caves

When a fire cleared overgrowth on a swath of Idaho land controlled by the Bureau of Land Management, a unique opportunity arose to look for caves which were nearly impossible to find otherwise. Bat Conservation International funded an aerial survey of the area by members of the NSS's Idaho Cave Survey. Potential lava tube cave entrances were located using GPS.

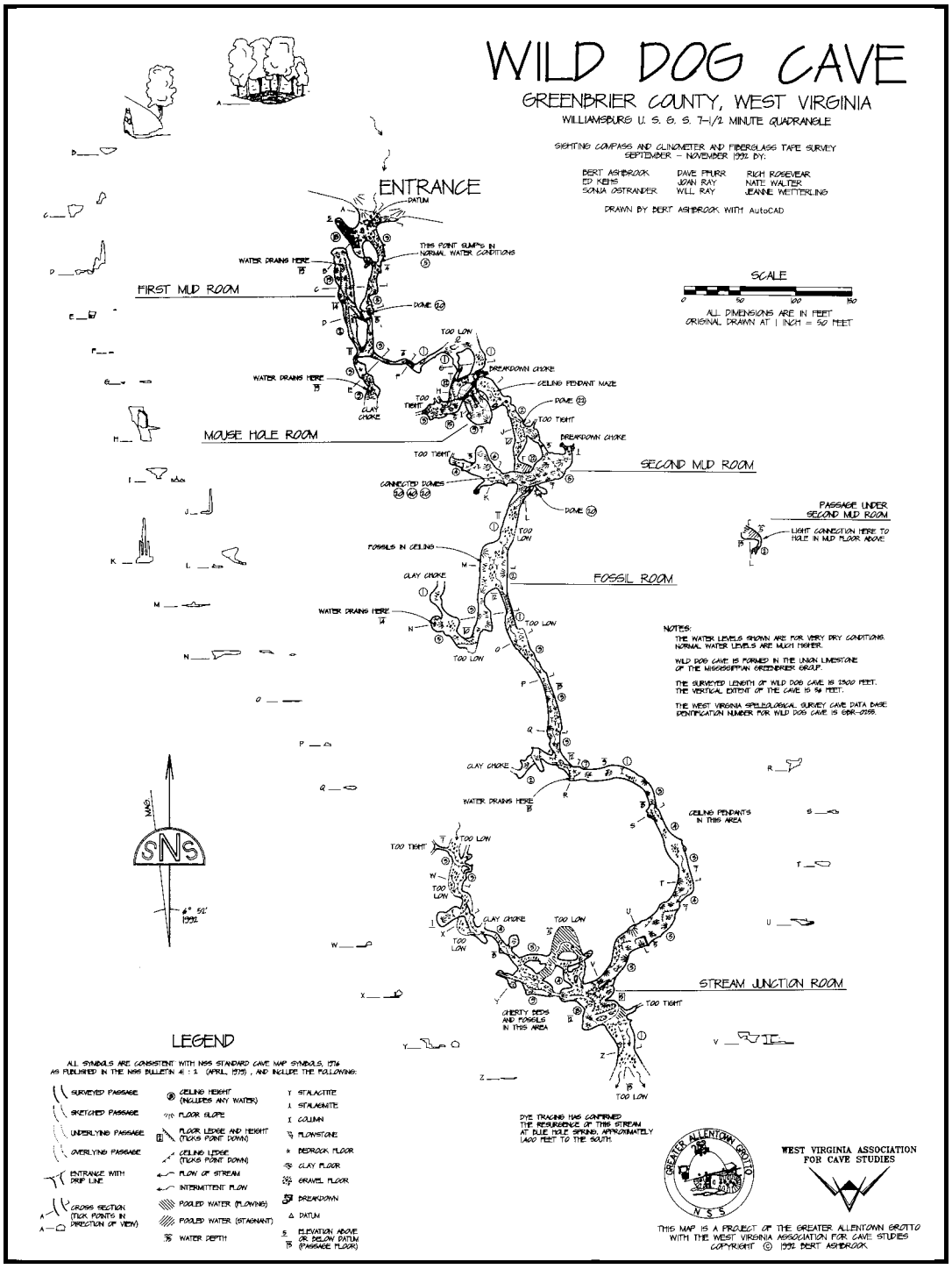
The NSS volunteers then returned on foot and found 43 new caves. Each was surveyed and photographed. Archaeological, paleontological, and biological resources were inventoried. Special attention was paid for evidence of a dwindling species of bat which uses the area. In all, over five miles of cave passage were found.

Exploration and Documentation of Caves: Making Cave Maps

Fictional spelunkers leave bread crumbs or unroll balls of string to avoid getting lost. In real life, cavers use maps to navigate through larger caves. In the United States, NSS members make nearly all of those maps.

No satellite or high-tech equipment can survey a cave; surveyors must manually measure every passage. This specialized skill is valuable because the work is often tedious and uncomfortable. Large caves regularly take decades to survey completely.

Cave maps have other very important uses. They document the location of cave passages relative to the surface. Hydrologists use them to track the flow of water underground. Geologists use them to help understand both the formation of caves and the geology of the surrounding rock. Cavers use them to select the most likely places to search for new passages. If a rescue is ever required, a good cave map may save a life.



Promoting Caver Safety and Fellowship

Although the NSS is largely a membership organization (our 12,000 members make us the largest cave-related organization in the world), we provide important cave-related services, resources, and information for both members and non-members alike.

The NSS provides training for cave rescue services throughout the nation through its National Cave Rescue Commission.

The Society operates one of the largest cave-related bookstores in the world. We publish a monthly magazine, the *NSS News.*

Annual NSS conventions provide a wealth of opportunities for learning about and visiting caves. The Society maintains what may be the world's largest cave library, along with a museum and archives of American cave exploration. The NSS also supports joint activities with foreign caving organizations.

Cave Rescue: Bowden Cave, West Virginia

The main entrance to Bowden Cave, West Virginia, is visible from the highway. On Saturday morning, July 28, 2001, two adult youth leaders and five boys left a note on their vehicle saying they would be poking around inside the cave and exiting from another entrance up the hollow. No one had checked the weather forecast.

Once inside, the group slowly headed up a lazy underground stream. Occasionally, the ceiling lowered and they had to crawl. Meanwhile, it started raining outside. They left the stream for a mazy section of the cave that they thought would lead up to the other entrance, but they could not find the way out. Eventually, they turned back to exit from the main entrance. But by then, extremely heavy rains outside had turned the lazy stream into a torrent, and in one of those crawlways, the stream had risen to within just 3 or 4 inches of the ceiling. Now they couldn't get back out the main entrance, and they couldn't find the other entrance. They were trapped.

On Sunday morning, the owner of the campground where the group was staying noticed they hadn't returned. He knew they had gone off caving somewhere, so he called the authorities. Eventually, the search was expanded to include the fire department near Bowden Cave, and they found the group's vehicle and the note. The fire department contacted a local coordinator for the National Cave Rescue Commission, and trained volunteers (mostly NSS members) began to arrive by Sunday evening. The group had already been underground for over 30 hours.

One team of rescuers went in the main entrance and fought their way up the raging river. They had to stop when they found the crawlway filled with water nearly to the ceiling. Meanwhile, a second rescue team hiked up the hollow and entered the cave from the other entrance. This team found the stranded group, who had moved to higher ground, removed most of their wet clothing, and used space blankets to try to keep warm while awaiting either rescue or for the water to recede. With the rescuers' help, they were able to exit the cave from the other entrance under their own power. One boy was hospitalized with hypothermia.

Promoting Caver Safety and Fellowship: Cave Rescue

Visiting caves is safe for trained cavers, but nearly ever week, an unlucky or inexperienced spelunker somewhere in the United States requires some sort of help to exit a cave.

The NSS' National Cave Rescue Commission helps fill this need. The Commission maintains a national curriculum for cave rescue training, trains volunteer rescuers, maintains communications with local, state, and federal rescue squads and agencies, and maintains strategically located caches of specialized equipment designed for cave rescues. The National Cave Rescue Commission does not provide rescue services *per se*; that is done by the thousands of individual volunteers (mostly NSS members) who serve in local rescue squads or cave rescue groups.

Most fire departments and rescue squads have no cave rescue experience—be it finding a lost group somewhere in a twenty-mile-long cave, keeping an injured caver warm until more help arrives, or helping move a litter through a tight crawlway. National Cave Rescue Commission trained rescuers are available nationwide to help local rescuers conduct underground search and rescue.

On Call

The NSS published the world's foremost treatise on cave rescue, titled *On Call*, at the end of 2001.

Cave Rescue Training

The National Cave Rescue Commission's cave rescue training curriculum includes dozens of weekend orientation seminars organized regionally and week-long "boot camps" for more in-depth training. To date, over 3,000 cavers have been trained by the Commission. Topics include patient care and stabilization in the underground environment, evacuation techniques for different types of cave passages, rope rescue techniques, underground communications, and incident management. The 2001 national boot camp was held in West Virginia, and the 2002 national boot camp was held in upstate New York.

The National Cave Rescue Commission conducted special cave rescue seminars for Wind Cave National Park in South Dakota and for local rescue and law enforcement personnel near a particularly popular and dangerous ice cave in the Teton Mountains of Wyoming. The Commission also trained cave rescue teams in Cuba, Costa Rica, and Argentina.

American Caving Accidents

The Society biennially publishes a compilation of reported cave accidents in the United States, *American Cave Accidents*. The publication is intended as a learning tool for novice and experienced cavers alike.

International Technical Rescue Symposium

The NCRC is an annual co-sponsor of the International Technical Rescue Symposium, which was held in Denver in November 2002 and in Salt Lake City in October–November 2003.

Underwater Cave Rescue

The NSS Cave Diving Section has trained more than 500 cave diving rescue and recovery specialists. The Cave Diving Section cooperates with National Cave Rescue Commission, the National Crime Information Center, the National Association for Search and Rescue, and even foreign governments to make underwater cave specialists available 24 hours a day.

The NSS Cave Diving Section educates open water divers about the extreme dangers of cave diving, to prevent tragedies in submerged cave passages. In cooperation with the federal government, state and local governments, and other diving organizations, the Cave Diving Section has developed a successful "no light" rule for open water divers to discourage them from entering into underwater caves. The Cave Diving Section also installs safety and warning signs at some better known underwater caves in the U.S., Mexico, and the Caribbean.

Promoting Caver Safety and Fellowship: Member and Non-Member Services

Membership Services

Each month, members receive our magazine, the *NSS News*. The *News* is full of features on cave exploration, conservation, history, and science. Regular columns cover caving technique and safety, basic principles of cave science, book reviews, and interviews. Each spring, the *News* publishes an issue devoted solely to cave conservation.

Members also receive the Society's peer-reviewed scientific journal, the *Journal of Cave and Karst Science*, an annual *Member's Manual*, and *American Cave Accidents*, which brings home a safety message.

The Society holds a convention annually in different locations throughout the nation. (In 2001 it was in Maine, in 2002 in Kentucky.) The convention attracts between 1,000 and 1,800 attendees. The weeklong meetings include technical and scientific sessions, presentations, workshops, seminars, field trips, competitions, and salons that cover all areas of the speleological arts and sciences. For young people, the Junior Speleological Society arranges special activities during the convention, including caving trips and educational programs.

Perhaps the greatest membership benefit is the camaraderie with other cavers. The NSS has over 200 local chapters, called grottos, across the nation which plan regular field trips and conservation projects. In addition, NSS sections are organized around common cave-related interests that cut across geographic boundaries, such as vertical or digging techniques, cave surveying and cartography, cave history, cave conservation, cave management, underground photography, cave diving, cave geology and geography, and more.

Membership in the Society is open to anyone, or any organization, who shares our goals. Minors and students can join at a reduced rate. Visit http://www.caves.org to join.

The NSS Bookstore

The Society operates one of the largest cave bookstores in the world for both members and non-members. Among the most popular titles is *On Rope*, the NSS' best selling book on rope climbing and rappelling techniques.

www.caves.org

The NSS' award winning Web site, http://www.caves.org, offers information about caves and about the Society, a lively discussion board where anyone can ask questions, and free downloads of some of the NSS' most popular publications. The site is a reference resource for members and non-members alike.

International Cooperation

The NSS provided a challenge grant to create an exchange program with the Polish Mountaineering Association. The Society also supports the Ukrainian–American Youth Caver Exchange Foundation and the China–USA Caves Project's joint exploration of caves in Guizhou Province. The NSS' Caves of Cuba Project develops relationships between cavers through exploration of Cuban caves.

Promoting Caver Safety and Fellowship: NSS Awards

The NSS awards a number of different honors to recognize extraordinary service to the Society or to speleology. The following awards were conferred in fiscal years 2001–2002 and 2002–2003, respectively:

Honorary Member

Dr. Paul Williams
Dr. Trevor Shaw

William J. Stephenson Outstanding Service Award

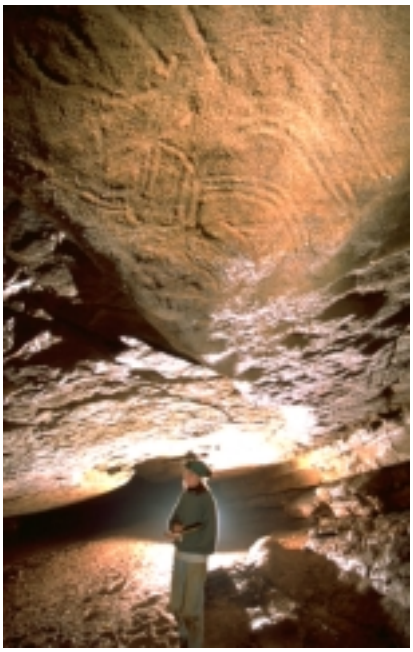
Dave Jagnow
Robert B. (Bob) Hoke

Lew Bicking Award (excellence in cave exploration, mapping, and publication)

Phil Lucas
David L. Black

Conservation Award

Jim Nieland
Kriste Lindberg



Science Award

James Reddell
Carol Hill

Spelean Arts and Letters

Tom Rea
Colin Gatland

Certificate of Merit

Scott Fee
VPI Grotto
Randall Blackwood
Eric and Melissa Hendrickson
Jim Nepstad
Paul and Lee Stevens

Peter M. Hauer Spelean History Award

Robert H. Thompson
John C. Taylor

Ralph W. Stone Research Grant (graduate student fellowship)

Jean Krejca
Darlene Anthony

James G. Mitchell Award (best scientific paper by an NSS member under age 25)

(no award in 2001–2002)
T.J. Friend

Fellows of the Society (long-term dedication to the goals of the Society)

Stan Allson
Barbe Barker
John Benton
Sam Bono
Jeff Bray
John Lamar Cole
Al Collier
Joe Douglas
Gary Fielden
Stephen Fleming
Dick Garnick
Bill Greenwald
Roger Haley
Andy Harris
Dave Haun
Jill Heinerth
Paul Heinerth
Al Hughes
Werner Jud
Jean Krejca
Dave Lester
Bill Meyer
Barbara Moss
Tom Moss
Andy Niekamp
Randy Paylor
Tom Pollock
Merrilee Proffitt
Julie Schenck
Cyndie Walack
Tim White
Jim Wilson
Dale Acklin
Bill Boehle
Gordon Brace
Terry Clark
Mike Dore
Pat Dore
Tom Dotter
George Jaeggers
Larry King
Devin Kouts
Kriste Lindberg
Harold Love
Paul Meyer
Richard "Fig" Newton
Jim Olsen
Steve Ormeroid
Doug Perkins
Brian Roebuck
Lynn Roebuck
Joe Skipworth

National Caves Association Show Cave Award (best paper on a show cave)

Rick Fowler, Chris Groves, and Shivendra Sahi
(no award in 2002–2003)

NSS Financial Reports

NSS Financial Reports:
Statement of Financial Position April 30, 2003 (audited[1])

Assets			Liabilities and Net Assets		
Current Assets			**Current Liabilities**		
Cash and cash equivalents	$ 244,320		Accounts payable	$ 8,367	
Accounts Receivable	9,226		Accrued expenses	1,319	
Inventory	188,705		Advances	1,191	
Prepaid Expenses	35,688		Deferred income	22,418	
Total Current Assets		$ 477,939	Current portion of note payable	25,968	
			Total current liabilities		$ 59,263
Property and Equipment					
Buildings	665,936		**Long-Term Liabilities**		
Land improvements	34,850		Mortgage note payable		145,062
Equipment	4,598				
Less allowance for depreciation	(66,497)		**Total Liabilities**		204,325
Total property and equipment		638,887			
			Net Assets		
Other Assets			Unrestricted net assetts		
Securities held for investment		1,968,184	Undesignated	388,993	
			Designated for a purpose	276,515	
			Temporarily Restricted	2,215,117	
			Permanently restricted	0	
					2,880,685
Total Assets		$3,085,010	**Total Liabilities and Net Assets**		$3,085,010

1. The notes to this statement and the independent auditor's report are an integral part of the audited financial statements. The complete independent auditor's report with accompanying notes is on file at the NSS office.

Picture Credits

Front Cover	Ed McCarthy	Carrots
Page 2	Ed McCarthy	Ghost
Page 4	Paul Meyer	Shelta fence under construction
Page 5	Colin Gatland	Final Emergence
Page 6	Jim Loftin	Pea Pie
Page 7	Dave Bunnell	Rust Stains
Page 9	Jeff Bushman	Dropping Stevens Gap
Page 10	Jonathan Griffith	Covered Veil Skylight
Page 12 left	Peter & Ann Bosted	The Splash Zone
Page 12 right	Alan Kressler	The Green Pool
Page 16	Jim Loftin	Crack in the Ceiling
Page 17	Ed McCarthy	Up
Page 18	Ed McCarthy	In the Bend
Page 19	Alan Cressler	Recording the Past
Back Cover	Jim Loftin	Thoughts and Reflections

All photos except page 4 are award winners from the 2002 Photo Salon.

NSS Financial Reports:
Statement of Activities April 30, 2003 (audited[1])

	Unrestricted	Temporarily Restricted	Permanently Restricted	Total of All Funds
Public Support and Revenue				
Public Support				
Membership dues	$284,864	$ 34,833	$ 0	$ 319,697
Donations	9,624	102,298	0	111,922
Grant income	894	3,575	0	4,469
Fund raising	4,374	0	0	4,374
Total public support	299,756	140,706	0	440,462
Revenues				
Advertising revenue	21,281	0	0	21,281
Bookstore sales	103,574	0	0	103,574
Convention revenue	141,743	6,592	0	148,335
Cave restoration revenue	0	0	0	0
Cave and karst education revenue	0	0	0	0
Cave rescue training fees and income	34,751	0	0	34,751
Fine arts salon income	10	0	0	10
Subscriptions and postal surcharges	4,990	0	0	4,990
Bookstore shipping fees	9,924	0	0	9,924
Miscellaneous	2,962	0	0	2,962
Total revenues	319,235	6,592	0	325,827
Total Public Support and Revenues	618,991	147,298	0	1,532,578
Expenditures				
Program Services	611,827	17,910	0	629,737
Support Services				
General and administrative	66,913	0	0	66,913
Fundraising	1,859	0	0	1,859
Total Expenditures	680,559	17,910	0	698,509
Excess (Deficit) of Revenue over Expenditures before Other Income (Expenses)	(61,608)	129,388	0	67,780
Other Income (Expenses)				
Interest expense	0	(2,030)	0	(2,030)
Interest and investment earnings	(837)	44,536	0	43,699
Total Other Income (Expenses)	(837)	42,506	0	41,699
Change in Net Assets	(62,455)	171,894	0	109,449
Net Assets, Beginning	614,667	2,273,981	0	2,888,648
Receipt of restricted assets from donors	0	0	0	0
Investment earnings on restricted assets	0	(117,412)	0	(117,412)
Suplemental Information				
Transfer of unrestricted assets to restricted	(7,570)	7,570	0	0
Transfer of restricted assets to unrestricted	86,006	(86,006)	0	0
Net Assets, Ending	$ 630,658	$ 2,250,028	$ 0	$ 2,880,685

1. The notes to this statement and the independent auditor's report are an integral part of the audited financial statements. The complete independent auditor's report with accompanying notes is on file at the NSS office.

NSS Financial Reports:
Statement of Cash Flows Fiscal Year 2002–2003 (audited[1])

Cash Flows from Operating Activities		
Reconciliation of Increase in Net Assets to Net Cash Provided (Used) by Operating Activities		
Increase in net assets	$ 109,499	
Adjustment to Reconcile Net Income to Net Cash Provided (Used) by Operating Activities		
Depreciation	4,077	
Realized (gains) losses on investments	2,426	
Unrealized (gains) losses on nvestments	(119,838)	
(Increase) decrease in assets		
Accounts receivable	(3,470)	
Advances	4,438	
Inventory	(312)	
Prepaid expenses	(13,002)	
Increase (decreasse) in liabilities		
Accounts payable	3,642	
Accrued expenses	(2,893)	
Deferred income	(23,877)	
Miscellaneous	(350)	
Net Cash Provided (Used) by Operating Activities		$ (39,710)
Cash Flows from Investing Activities		
Purchase of fixed assets, net	(238,752)	
Purchase and redemption of securities, net	54,014	
Net cash Provided (Used) from investing activities		(184,738)
Cash Flows from Financing Actifities		
Proceeds from mortgage note payable	195,000	
Mortgage principal payments	(23,970)	
Receipt of restricted assets from donors	0	
Net Cash Provided (Used) by Financing Activities		171,030
Net Increase (Decrease) in Cash and Cash Equivalents		(53,418)
Cash and Cash Equivalents at Beginning of Year		297,738
Cash and Cash Equivalents at End of Year		$ 244,320
Supplemental Information		
Interest paid on mortgage	2,030	

1. The notes to this statement and the independent auditor's report are an integral part of the audited financial statements. The complete independent auditor's report with accompanying notes is on file at the NSS office.

NSS Personnel (as of March 2004)

NSS Personnel: Directors

Hazel Barton, Highland, Kentucky
Linda Baker Divine, Potomac, Maryland
David Jagnow, Albuquerque, New Mexico
Cheryl Jones, McLean, Virginia
Bill Klimack, West Point, New York
Bill Liebman, Cass, West Virginia
Doug Medville, Reston, Virginia
Martha Hendrix Mills, Birmingham, Alabama
Gary Moss, Falls Church, Virginia
Philip Moss, Protem, Missouri
Dave Taylor, Clarksville, Arizona
Bill Tozer, Pendleton, Indiana

NSS Personnel: Officers

President – Scott Fee, Birmingham, Alabama
Executive Vice President – Don Paquette, Martinsville, Indiana
Administrative Vice President – Thomas Lera, Falls Church, Virginia
Operations Vice President – Colin Gatland, Vandalia, Ohio
Secretary-Treasurer – Paul Stevens, Ashburn, Virginia

NSS Personnel: Employees

Operations Manager – Stephanie Searles, Huntsville, Alabama
Office Secretary – Avis Van Swearingen, Huntsville, Alabama
Office Assistant – Bill Torode, Huntsville, Alabama
Bookstore Assistant – Micca Armstrong , Huntsville, Alabama

NSS Donors

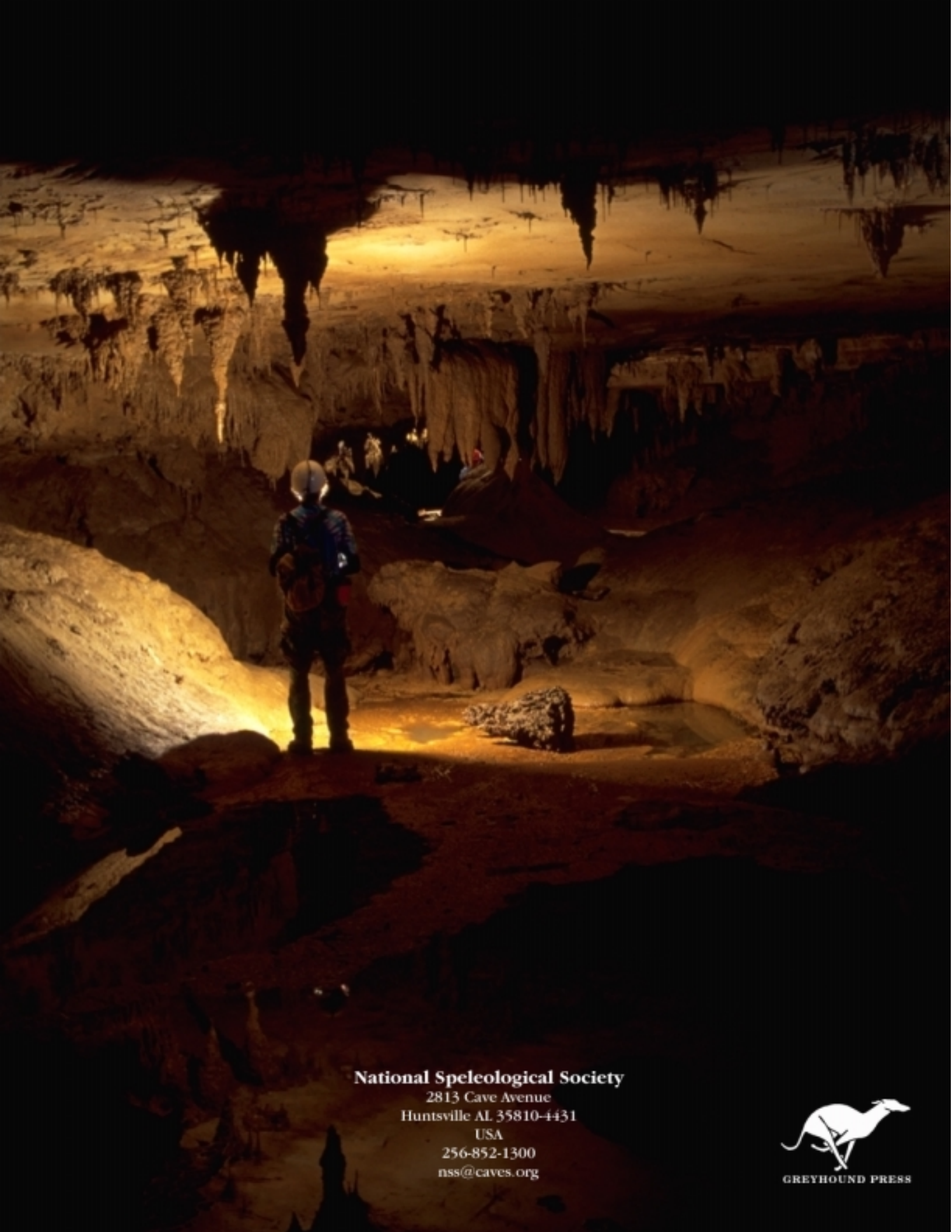
Almost all NSS programs are staffed by unpaid volunteers who together donate countless thousands of hours every year benefiting caves. Donations make this work possible, and every dollar is multiplied many times over by our dedicated volunteers. The National Speleological Society, Inc. is a non-profit corporation and is tax exempt under Section 501(c)(3) of the Internal Revenue Code. Contributions to the Society are deductible to the full extent allowed by law.

The Society's "Stash Your Cash" program allows small monthly credit card gifts that add tremendously to what we can accomplish. A complete list of our donors is published annually.

NSS Donors: The Stephenson Group

The Stephenson Group consists of members of the Society who have made lifetime gifts totaling $10,000 (*), have designated the Society to receive $10,000 or more at their death, or have given the Society a 25% interest in a charitable trust. The Stephenson Group (as of March 2004) includes:

Richard Blenz*
Don Cournoyer
Robert E. Danielson*
Scott Fee
Shari J. Forsythe
Preston L. Forsythe
Jeanne Gurnee*
Mr. Russ Gurnee*
William Halliday*
David W. Hughes
Cheryl Kayes
Ted Kayes
Michael R. Kistler
Lynn G. Kleina
Thomas G. Lera
John E. Pearson
Doug Soroka
Jack Stellmack
Merle Stephenson*
Lee Stevens
Paul J. Stevens
Eugene Vehslage*
Dogwood City Grotto*
Richmond Area Speleological Society*



National Speleological Society
2813 Cave Avenue
Huntsville AL 35810-4431
USA
256-852-1300
nss@caves.org

GREYHOUND PRESS