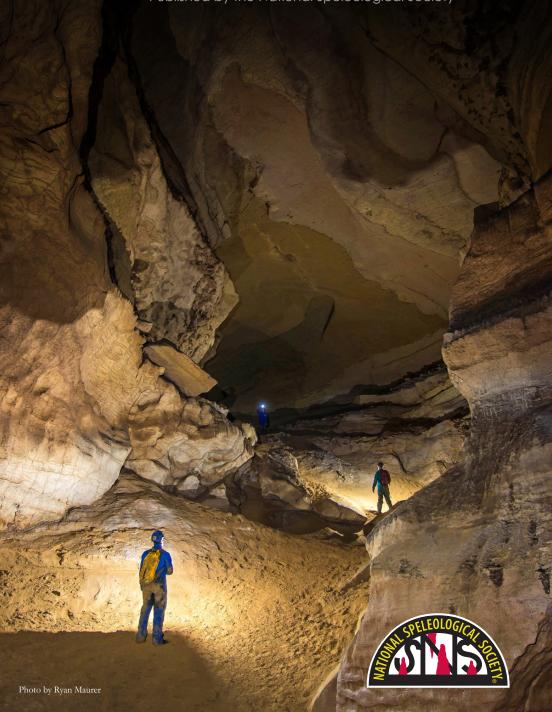
# A Guide to Responsible Caving Published by the National Speleological Society



# A Guide to Responsible Caving

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www.caves.org

# **FOREWORD**

aving can be a rewarding, safe, and fun activity when you are properly trained, equipped, and prepared. But there is more to being a "real" caver than having the correct skills and gear: you also must be a responsible caver. This means you show respect for the cave, and its challenges, environment, and creatures, as well as for cave owners and their property. This is critical to preserving the cave wilderness and keeping caves open to cavers for years to come.



In this booklet, the National Speleological Society (NSS) provides an introduction to becoming a responsible caver. We hope these guidelines will help make your ventures underground safe and enjoyable, and pave the way for you to become a respected member of the caving community. I encourage you to join a local chapter of the NSS to develop your skills and knowledge with experienced cavers and speleologists, and become a part of the caving community.

This is the fifth edition of my original booklet, A Guide to Responsible Caving. A special thank-you to my fellow cavers for their hard work and dedication: Cheryl Jones for revising and editing this publication and Michael Dale for the design and layout.

Adrian (Ed) Sira NSS 11904 FE



# **Table of Contents**

Pg. 3-4 Going Caving?

Pg. 4-5 The Underground

Pg. 5-7 Cave Life

Pg. 7-8 Protecting Cave

Resources

Pg. 9-10 Caving Courtesy

Pg. 10-12 What To Bring

Pg. 12-13 Before the Trip

Pg. 14-15 Cave Like a Caver

Pg. 15-17 Hazards

Pg. 18 Quick Review

Pg. 19 Do It Right

Pg. 20-21 NSS Policy for Cave Conservation

Pg. 22 Additional Reading

# **Going Caving?**

Responsible caving is critical for preserving the cave environment, strengthening caver-landowner relations, and making your trip underground a safe one.

This booklet outlines how to take care of the cave, yourself, and your caving companions. However, this is no substitute for gaining knowledge directly from competent cavers.



# **Tolerating misery**

So you want go caving? Be aware that caving tends to be cold and muddy, and exhausts muscles you didn't know you had. Caves vary in difficulty; however, tight passages, cold water, challenging climbs, and long crawls are not uncommon. Dangers may include falling off ledges, being crushed by rocks, drowning, and developing a dangerously low body temperature.

But for people who are trained and equipped to cave safely, the rewards, accomplishments, and pleasures far exceed the discomforts and risks.

# Why visit caves?

People visit caves for many reasons, but mainly for pleasure or science. Non-cavers may know us as spelunkers, but we prefer to be called "cavers." Speleology is the scientific study of caves, and those who study caves are speleologists.

# What do cavers do underground?

They enjoy the adventure of searching for new passages or traveling through a wilderness normally hidden from view. They survey caves to make maps, study geology and biology, clean trash and vandalism from passages, and repair broken formations. The knowledge they gain can contribute to effective environmental and land-use planning.

# Responsibility

You and your caving partners are responsible for protecting yourselves, each other, and the caves you visit. Being a responsible caver involves planning carefully, being properly trained and equipped, moving through the cave safely with minimum impact and returning on time.

# The Underground

## **Karst**

A cave is a natural void under the earth's surface, and most caves are formed in soluble rock, usually limestone. A solution cave is formed over millions of years when rock is dissolved by slightly acidic water. Terrains that show evidence of solution caves, such as sinkholes and springs, are called karst. Caves formed in lava by volcanic processes are called lava tubes.

# Characteristics of caves

Some caves have passages that extend for tens of miles, but most caves are much shorter. Many caves are damp and muddy, although some are dry and dusty. Caves may contain walking-sized passages, crawlways, constrictions, or tall narrow canyons. Often they contain streams, lakes, waterfalls, pits, or high domed ceilings, and some caves are subject to flash flooding. Some caves exist entirely underwater and others have extensive submerged passages.



Underground, water has sculpted the rock walls, rocks have fallen from ceilings and walls to form piles of breakdown, and streams have left mud or sand along their banks. Floors can be muddy, sandy, rocky, or gravelly. The temperature of most caves is the long-term average of the surface temperatures above the cave. Therefore, caves closer to the equator are warmer than caves farther from the equator, and those in lowlands are warmer than those in the mountains.



Photo by Roy Gold

# **Speleothems**

Water containing dissolved minerals through cracks in the rock, creating formations, or "speleothems," on the floors, ceilings, and walls of caves. Most often these speleothems are composed of crystals of calcite or gypsum, and they may incorporate other minerals that provide color. Speleothems include stalactites, stalagmites, helictites, draperies, pearls, flowstone, rimstone, and columns. These formations grow slowly, sometimes for thousands of years, and because of changes in weather or surface drainage patterns, some are no longer growing at all. You'll find most are beautifully unique.

A single careless touch or malicious gesture can destroy what may have taken hundreds or thousands of years to form, and once damaged or destroyed, speleothems may not regenerate at all. Mud from a caver's glove or boot can remain forever as an ugly stain.

Take special care to avoid damaging speleothems. Remain on established trails in a cave, be careful where you place your hands and feet, and avoid knocking formations hanging from a low ceiling.

# Cave Life

Caves provide transitory or permanent sanctuary for a range of flora and fauna. The variety of life in a cave is small and the ecosystem is far more fragile than most of those on the surface. Do not disturb a cave's inhabitants, and treat them and their home with respect.

To avoid carrying bacteria, fungus, and other life from one cave to another, always wash your clothes and equipment well between caving trips.

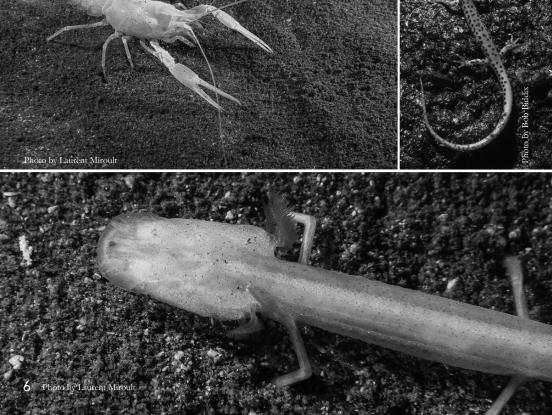
# **Troglobites**

Cave-dwelling organisms that spend their entire lives underground are called troglobites. These include fish, salamanders, crayfish, insects, and spiders. They are specially adapted to living in darkness, and they offer biologists insight into biological processes, such as evolution. Many troglobites are blind with no skin pigment, and their range is limited to certain caves or regions.

Troglobites cannot live outside a cave, and their survival may be threatened if the cave environment is damaged or altered. Water pollution, visitor traffic, trash, flooding, and a change in air patterns and temperature can disturb or damage a cave's fragile food web and ecosystem. Once destroyed, there is little chance that these ecosystems could regenerate, and unique troglobites would be gone forever.

# **Trogloxenes**

Animals that make their homes in caves but return to the surface to feed, including bears, packrats, snakes, raccoons, swallows, moths, and foxes are called trogloxenes.







#### **Bats**

Many species of bats are trogloxenes too, and these flying mammals play important roles in both cave and surface ecosystems. Most species are insect eaters — a bat can eat half its body weight in insects each night. Sadly, bat colonies throughout the world are declining drastically due to human activities and disease.

At some point in their life cycles, 2/3 of the 47 species of bats in the United States use caves, or cave-like structures, such as abandoned mines. Inside some caves, bats give birth and rear their young in the summer and hibernate in the winter. At these times it is important to stay out of these caves to avoid disturbing the bats. Some maternity and hibernacula caves are identified by signs at their entrances or are protected by gates.

White-nose syndrome (WNS), a fungal disease discovered in 2006, has killed millions of cave-dwelling bats in eastern

and central North America, decimating populations. Scientists are working to learn more about WNS, discover a way to stop its spread, and develop methods to protect the few bats that survive the disease. Learn more about WNS on the NSS website and from the NSS WNS brochure.

# **Extremophiles**

Biologists have discovered cave-dwelling extremophiles whose food web is based on chemosynthetic, or "mineral-eating" bacteria. These organisms offer clues about life on Earth as well as other planets.

# **Protecting Cave Resources**

# **Drinking water**

Only by wisely and carefully managing karst and water, and keeping pollutants from entering caves, can we protect the quality of our drinking water. In karst and lava areas, surface water flows quickly into caves with little filtration.

This water and the pollutants it carries — such as human and animal waste, agricultural chemicals, and petroleum products — can travel unfiltered great distances underground, and into wells, springs, and aquifers. These contaminants can pollute the water that you may end up drinking.

Sinkholes should not be used for rubbish disposal and pollutants should be kept out of streams. Even though you may not see a cave entrance, trash (including dead animals) dumped in a sinkhole can enter and harm a cave ecosystem and aquifer.

# **Archaeology**

Since prehistoric times, caves have served as homes, burial grounds, and religious sites. Unlike most other environments, the nearly constant temperature and humidity of a cave can preserve some of our most sensitive archaeological and cultural sites for millennia.

#### Modern threats

Land development can introduce threats to caves and their environments, through pollution, quarrying, and vandalism. Unfortunately, carelessness and ignorance by human visitors can also quickly damage a cave and its contents forever.

#### Vandalism

Most states have laws against damaging a cave or its contents, and on federal land, this violates the federal Cave Resources Protection Act. If you buy speleothems, you help create a market that encourages the destruction of cave formations. Collecting even broken formations can be against the law and encourages others to break and collect them. Don't be a vandal or encourage them! A reward is offered by the NSS to anyone whose information led to the conviction of cave vandals anywhere in the U.S.

# **Sharing cave locations**

Caves are the world's most remote and fragile wildernesses. Don't reveal the location of caves to people who may harm them, harm themselves underground, or disrespect landowners. In this way you are responsible for protecting both the cave and people you meet who don't understand that special skills and equipment are needed to venture underground.

By causing an increase in casual visitors to wild caves (geocaching or posting locations on the Internet, for example) you could cause those caves to be vandalized and possibly closed.

# **Caving Courtesy**

#### Landowner relations

Most caves are on private property, so good relationships between cavers and landowners are essential. Maintaining these relationships is a key element of responsible caving. Sadly, many landowners now prohibit people from entering their caves as a result of inconsiderate cave visitors, and others have placed locked gates on their caves.

Ensure you are a welcomed guest and help keep caves open for other cavers by following these fundamental courtesies.

#### **Permission**

Before entering a cave on private land, learn from a local caver or chapter of the NSS (grotto) the procedure for visiting. You may need to obtain the owner's permission, sign a log, contact the cavers who manage the cave, or comply with another formality.

#### **Manners**

If the protocol for visiting a cave includes asking permission of the cave owner, introduce yourself and the cavers with you. Spend some time chatting; you may need to assure them that you are competent and conscientious. Ask where you may park, the route you should use to walk across the property, and if there are any special instructions. Thank the landowners for their hospitality. Visit them again after returning from their cave, unless it is late. Be quiet, especially at night.

Open or closed, leave gates as you find them. Use gates, and avoid climbing fences. If you must climb over a fence, climb near a strong post.

Avoid disturbing livestock, walking across a planted field, or driving across muddy pastures. Replace livestock barriers erected at the cave entrance.



Many owners have never visited their caves so they often appreciate receiving copies of photos and maps showing what lies beneath their land and learning about newly discovered passages.

You may meet owners who flatly will not allow you into their caves. In that case, thank them for their time and leave. Never sneak into caves.

#### **Discretion**

When changing clothes before or after your cave trip, find a private, sheltered spot.

#### Leave no trace

Leave the cave and the surface cleaner than you found it. Don't damage the landscape or property and carry out all your trash.

#### **Public land**

Although some caves controlled by public agencies may be entered without prior permission, some require a permit or a gate key. Contact the agency in advance to learn what is necessary to enter a cave and allow time for a response.

# **What To Bring**

# Getting equipped

Every caving trip requires the same basic equipment and supplies. However, depending on the cave and type of trip, you may need additional gear to be safe and comfortable. Ask your trip leader, or ask a caver who is familiar with caves in the area.

You can find vendors who specialize in caving equipment through their ads on the NSS website and at large regional caver events and NSS conventions.



# Lights

Each person should carry at least three independent sources of light, and more batteries than you think you'll need. Mount the primary light on your helmet, so that you automatically have light wherever you face, leaving your hands free to climb, or to catch a slip or stumble. The second and third light sources must also ride on your helmet when needed and be suitable as primary sources. Because of their energy efficiency and reliable bulbs, choose headlamps that use LEDs. Candles and glow sticks have never been reliable or even adequate sources of light.

When you stop to rest or eat, conserve batteries by only using a small ancillary light or minimizing the beam on your main light.



#### Helmet

Your helmet provides critical protection for your head and a mount for your lights. Wear a helmet designed for rock climbing or caving, and look for the sticker that indicates it meets standards of the UIAA (Union Internationale des Associations d'Alpinisme) or of the European Committee for Standardization ("CE") equivalent. Other types of helmets will not provide adequate and continuing impact protection from falls and falling objects typical of caving. Adjust the fit and buckle the chin strap to keep it firmly in place.

# Other equipment

Cavers also carry or use these items underground:

- Gloves to keep hands warm and minimize cuts and scrapes. Gardening or thick rubber gloves are generally adequate.
- A large, plastic trash or leaf bag, carried for quick retrieval. Wearing it (make a hole for your head or face) can help prevent hypothermia, or keep you dry.
- Knee pads and elbow pads.
- Food sufficient for the length of the trip, and an extra amount in case the trip takes longer than expected.
- Drinking water.
- An extra layer of clothing, such as a long underwear top or sweater, for long periods of inactivity.
- A durable container for human wastes. Pack it out!
- Pencil and (waterproof) paper, protected from water.
- A small, strong, lightweight pack, made from a durable synthetic fabric. Using waterproof containers in the pack will help keep items dry.

#### **Dress for success**

Dress for moving through the expected cave temperature and environment. Remember, most caves are chilly to cold, and often muddy and damp. Except in the driest, warmest caves, avoid wearing cotton clothing because it absorbs and retains more water than synthetic fabrics. Wet clothes keep you colder than dry clothes. Polypropylene, nylon, and polyester tend to be more abrasion-resistant, absorb less water, dry more quickly, and retain heat better than natural fabrics.

In all but the warmest caves, dress in layers of clothing, so you can adjust your temperature. The outer layer needs to be able to withstand the cave's abrasive and sharp rocks. Some caves are so cold and wet that they require special clothing.

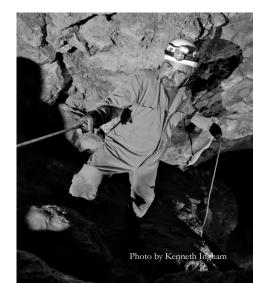
Wear sturdy boots with lug soles and ankle protection to protect your feet and grip securely on rocks and mud. Don't wear athletic shoes underground.

# **Before the Trip**

#### Plan

When you might be tempted to cut corners on gear, preparation, or training, ask yourself how much your life is worth.

- Obtain as much information as possible about the cave before you enter.
- Confirm that your equipment is appropriate for the cave.
- Check that your lights work as they should and that you have packed fresh, spare batteries.
- Ensure that the cave and the trip you anticipate don't exceed your experience level, equipment, preparation, or ability.
- Have a plan for the trip and know what to do if something goes wrong.
- Plan to head out of the cave when you have consumed no more than one third of the batteries for your primary light. Exiting often means an uphill grade to the entrance, so it can take longer and tire you more than the trip in. Plan to exit the cave with at least one third of your primary light's batteries unspent.
- Know how your equipment works.
   Don't wait until you are underground to figure out your gear.



# **Contingencies**

From the local NSS grotto (caving club), learn the telephone number to call when a cave rescue is necessary. Carry this number with you in the cave, leave a copy in the car and give it to someone who knows your caving plans. If instructions are to dial 911, tell the dispatcher there is an emergency requiring a cave rescue-trained team.

Cave rescue is technical and difficult, and it requires special equipment, training, and skills. The NSS's National Cave Rescue Commission (NCRC) offers several levels of cave rescue courses throughout the year around the country and encourages all cavers to participate.

# Top cover

Notify a reliable person about your caving plans. Include the name and location of the cave you are visiting and when they should expect to see or hear from you. Agree what to do if you don't return or call in on time. Remember that cell phone service in rural and mountainous areas may be spotty or absent.

If you exit the cave after your estimated time, contact your top cover as soon as possible to prevent an unnecessary rescue callout. This wastes the time and resources of many dedicated volunteers.

#### Landowners

Be courteous and respectful of cave owners and their property. As opportunities arise, discuss the value of caves with them. Point out how polluting a cave can affect their groundwater, and explain how anything dumped in a sinkhole can damage underground ecosystems. Make them aware of the biological, historical, prehistorical, and/or aesthetic value of their cave. To help you with this, the NSS offers brochures on its website that you may give to landowners.



# Cave Like a Caver

#### **Teamwork**

Responsible caving is a team activity and not a competition. Responsible cavers think and act as a unit underground to ensure a safe trip. The actions or attitude of a single member can jeopardize the safety and experience of the whole team.

Move only as fast as the team's slowest member. Stop periodically for a rest, a drink of water, and perhaps a snack. Stay in voice contact with your teammates. After negotiating a tricky obstacle, remain there until the next team member arrives, and offer help. Don't be reluctant to offer, ask for, or accept help.

Teams larger than six tend to be slower and more difficult to manage, so it is good to divide a larger group of cavers into separate teams. A minimum team of four allows one person to stay with an injured person while two go for help.

# Pack it in, pack it out!

Take all trash, food, batteries, and any other waste out of the cave. A caving trip may be short enough that you can avoid relieving yourself underground. However, when you must do so, use an appropriate container, and take the waste out of the cave. Using a cave as a toilet forces the next caver to encounter your waste and can affect the cave's delicate ecosystem. Experienced cavers can provide tips and best practices.

## Fire and smoke

Fire and smoke (including that from burning tobacco) pollute the air in caves, irritating the organisms that live there and people who visit. Therefore, don't smoke or light fires in or near caves.

# **Underground trails**

When established trails exist, stay on them to help keep other areas of the cave pristine. If you visit new or less-traveled passages, keep your team to one route to minimize your effect on the cave and to establish a trail for future visitors.

## **Alertness**

When caving, remain clear headed. Drugs, including alcohol, that affect your alertness, judgment, or ability to think clearly make you a dangerous caver and a threat to the safety of your team. Enter the cave alert and well-rested.

#### **Fitness**

Caving can be physically demanding, and fatigue or weakness makes you prone to accidents. New cavers should begin with short trips. Learn your limits and don't attempt caves beyond your abilities. As with other sports, exercising between trips will help your strength and stamina. If you have doubts about how difficult the cave may be for you, talk to the trip leader or an experienced caver.

Tell your team members when you feel it is time to turn back and when you need to rest or eat. Tell your trip leader or team members about any medical issues that may affect you while underground.

# **Ropes**

You may find a handline helpful on some climbs underground, but freeclimbing a rope hand-over-hand is an easy way to die. Use only nylon rope or webbing that is specifically made for caving or rock climbing and know its strength. Avoid using ropes, slings, and ladders you encounter underground.

Vertical caving — using ropes to descend and ascend pits — involves special skills and equipment, which differ from those used by rock climbers. Obtain vertical caving training from a competent caver and practice aboveground before doing ropework underground.

# Hazards

A novice's apprehension before caving is healthy and being aware of possible hazards helps you avoid them. Your confidence and skill will grow with each trip underground.

When an accident happens in a cave, the trip's members are the first responders. Be prepared by taking a wilderness first aid, or similar, course.

# **Accidents**

Caves are unforgiving of visitors who are careless or unprepared. However, if you are properly equipped and have the right attitude and training, you can cave safely. Often, caving accidents result from a lack of experience or training, fatigue, or poor judgment.

An injury that might be minor to treat aboveground can have life-threatening consequences underground and require a major rescue. This in turn endangers other people, as well as the cave itself. Additionally, rescues may result in bad publicity for cavers and for caving in general and could cause landowners to close their caves.

If an immobilizing accident or medical issue occurs that prevents a caver from safely exiting the cave, first treat any life-threatening injuries. Keep the injured caver warm and dry, using spare clothing, plastic garbage bags, and foam pads. Write down the person's name, injuries/problem, and condition, any treatment and the time and location of the incident. Send this information with at least two cavers to the surface to call for help, then prepare for a long wait. The exiting cavers should carefully mark their route to expedite a return to the victim. The cavers who remain should keep notes on the injured caver's condition, any treatment provided, and the times each occur.

When calling 911, be sure to tell the dispatcher there is an emergency requiring a cave rescue-trained team and the nature of the problem. You will need to accurately provide the location of the cave or the place where you will meet the first responders to lead them to the cave.



## Rock!

Beware of falling objects while caving. Standing below someone climbing puts you in a rockfall zone as well as in a "people-fall" zone, a dangerous place to be. Don't begin climbing until those below you are out of range.

If you do dislodge a rock or drop equipment, warn those below you by shouting "Rock!" loudly and clearly. When you hear someone yell "Rock!" move quickly to a safer location, make yourself narrow, and don't look up.

# **Trapped**

Avoid forcing yourself into small places where exiting may be very difficult or your teammates would be unable to help you out. Consider entering a tight section of downhill passage feet first — it will make exiting uphill easier.

Be careful crawling under and through boulders and breakdown so as not to dislodge rocks.

#### Lost

As you proceed through a cave, turn around to look at the passage behind you, find landmarks, and memorize intersections and climbs. Responsible cavers know that every cave is two caves — the one you see entering and the one you see leaving. On the way in, place a small pile of rocks at intersections where the passage out is not obvious. Should you become lost, systematically and thoroughly check passages, marking them with loose rocks as you go.

If you are thoroughly lost and your light supply is low, find a dry spot to wait for help. Stay out of breezes and water and wear your driest clothes, for help may not arrive for hours. To stay warm, you may need to wear your plastic garbage bag. Turn off your lights. Call out when you hear someone.

#### **Falls**

Falls are a common type of caving accident. Slow down, pay attention to where you are going and what you are touching. Avoid running, jumping, and other sudden moves. When you climb, test handholds and footholds before committing yourself to a move, and have three points of contact on the rock. Use extra caution at the edges of pits and drop-offs and on slippery surfaces.

Learn on the surface how to establish and use a top belay, and don't hesitate to provide one when a caver requests it, or to protect your teammates on a tricky climb.

#### Floods

Some caves flood, either suddenly or slowly, and rising water can trap and even drown cavers. If rain is possible, or if you have doubts, visit another cave. If underground you notice a stream or river rising quickly, move out of the water passage or to the highest point you can find.

# **Out of light**

Moving together as a team, with each person carrying three sources of light and extra batteries, means that finding yourself out of light should be only a dim possibility. However, if this occurs, stay put. Trying to cave in the dark is a really bad idea.

# Hypothermia

Wet and sometimes breezy conditions in caves promote hypothermia, which can be deadly. Dress warmly, keep moving, stay out of breezes when not moving, and avoid getting unnecessarily wet. Some cavers take a small, thin, closed-cell foam pad to sit on when resting, and most take an extra layer of upper torso clothing and even a lightweight balaclava for long stops. Learn tips on avoiding hypothermia from experienced cavers.

# **Quick Review**

#### For the cave

- · Avoid disturbing cave organisms or their environment.
- Pack out everything you bring with you and any trash you find.
- Carry an appropriate container for your body wastes and pack them out.
- Don't smoke or light fires in caves or near entrances.
- Don't disturb archeological or paleontological artifacts.
- Don't damage formations or other surfaces of the cave.
- Stay on established trails to help keep other areas of the cave pristine.
- Participate in projects to preserve and rehabilitate caves, such as removing graffiti and litter.
- Educate landowners about the value of their caves.
- Clean sinkholes that have been used as trash dumps.

# For yourself

- Learn safe caving skills from responsible, experienced cavers.
- Check the weather forecast before entering a cave.
- Leave your plans with someone on the surface.
- Ask permission from the cave owner.
- Be properly dressed and equipped.
- Know your limits, rest frequently, and watch for fatigue in others.
- Dress to avoid hypothermia.
- Let the slowest caver set the pace.
- In case of an immobilizing accident, keep the injured caver warm.
- If you get lost, stay warm and conserve your light.
- If you have no light, stay put, warm, and dry.
- Take an NCRC Orientation to Cave Rescue course.
- Take a wilderness first aid course.



# Do It Right

# Ready to become a caver?

Then do yourself a favor: contact and join a local chapter, or grotto, of the NSS to learn more about caves and caving from its members. Visit the NSS website to find a grotto in your area.

In fact, join the NSS. With over 10,000 members, this nonprofit does more than any other organization to explore, study, and conserve cave and karst resources, protect access to caves, and promote responsible management of caves and their unique environments.

If first you would like just to give caving a try, consider a wild trip offered by some commercial caves and National Parks. These are also good trips for youth groups. Check the National Caves Association and National Park Service websites for the show caves near you.

Finally, investigate and learn. Visit the NSS website, join the NSS's caving forum (CaveChat.org), read books on techniques and speleology, and attend NSS conventions and regional caver events to meet and learn from experienced cavers.



Always follow the motto of responsible cavers:

Take nothing but pictures
Leave nothing but carefully placed footprints
Kill nothing but time

Photo by Roy Gold

# **NSS Policy for Cave Conservation**

#### **Conservation creed**

The National Speleological Society believes: that caves have unique scientific, recreational, and scenic values; that these values are endangered by both carelessness and intentional vandalism; that these values, once gone, cannot be recovered; and that the responsibility for protecting caves must be assumed by those who study and enjoy them.

# **Cave preservation**

Accordingly, the Society works for the preservation of caves with a realistic policy supported by effective programs for: the encouragement of self-discipline among cavers; education and research concerning the cause and prevention of cave damage; and special projects, including cooperation with other groups similarly dedicated to the conservation of natural areas.

Specifically: all contents of a cave — formations, life, and loose deposits — are significant for their enjoyment and interpretation. Therefore, caving parties leave a cave as they find it. They provide means for the removal of waste, limit markings to a few small and removable signs as are needed for surveys, and especially, exercise extreme care not to accidentally break or soil formations, disturb life forms, or unnecessarily increase the number of disfiguring paths through an area.



# Collecting in caves

Scientific collection is professional, selective, and minimal. Collecting mineral or biological material for display purposes, including previously broken or dead specimens, is never justified, because it encourages others to collect and destroys the interest of the cave.

# **Appropriate conservation projects**

The Society encourages projects such as: establishing cave preserves, placing entrance gates where appropriate, opposing the sale of speleothems, supporting effective protective measures, cleaning and restoring over-used caves, cooperating with private cave owners by supplying them with knowledge about their cave and assisting them in protecting their cave and property from damage during cave visits, and encouraging commercial cave owners to make use of their opportunity to aid the public in understanding caves and the importance of their conservation.

#### **Publication of cave locations**

Where there is reason to believe that publication of cave locations will lead to vandalism before adequate protection can be established, the Society will oppose such publication.

# Society member duties

It is the duty of every Society member to take personal responsibility for spreading a consciousness of the cave conservation problem to each potential user of caves. Without this, the beauty and value of our caves will not long remain with us.



# **Additional Reading**

#### **Books**

The National Speleological Society Bookstore offers an extensive range of books on caves and caving. Shop online at www.NSSBookstore.org.

# Youth groups

The NSS website offers information on youth group caving for leaders and parents, including an equipment list and information specifically for Scouts. Don't hesitate to contact the NSS youth group liaison at nssyouth@caves.org about preparing to take young people caving.

#### **Useful websites:**

- National Speleological Society: www.caves.org
- Youth Opportunities Underground: www.YOUcave.org
- National Caves Association: www.cavern.com
- Bat Conservation International: www.batcon.org
- National Park Service Caves and Karst Program: http://nature.nps.gov/geology/caves/index.cfm
- Cavers discussion forum: www.CaveChat.org

#### Social media

Visit the NSS website to connect with cavers on social media.

