

Safety and Techniques

Part II: At The Cave

What to Wear and What to Bring

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Published in the NSS News, Oct. 2007

Volume 65, Number 10, pages 9-10.

In part one of this two-part series, I discussed the responsibilities of a trip leader. In this second article I will cover what kind of clothing should be worn as well as the equipment needed for horizontal caving. Future articles will discuss the equipment needed for a vertical caving trip. As always, I welcome your feedback and input on topics related to cave safety and equipment. If you have any comments, feedback or input please feel free to contact me at: cave_safe@hotmail.com.

DRESS PROPERLY

What you wear in a cave is up to you, yet what you wear can make a big difference in your ability to move safely and effectively in the cave. It can make an even bigger difference if you become injured or disabled in the cave and need to be rescued.

What you wear depends on where you are caving. For example, in West Virginia and Virginia the average cave temperature is 53° F year round. The caves can be wet and muddy and “cave wind” can make them feel much colder, especially when you are already wet. On the other hand, if you are bouncing pits in TAG or Mexico the temperatures can be in the 80s or even higher. Obviously, you will dress differently for each of these caves. Your group leader will be able to help you figure out the best gear to wear for the particular cave you are visiting. A good rule of thumb is layer your clothing to suit the activity level and temperature of the cave and use synthetic materials, such as polypropylene or nylon, rather than cotton.

For caving in the Virginia Region, I suggest wearing coveralls with either fleece or polypro undergarments. Synthetic fibers dry quickly and, unlike cotton, do not keep moisture close to your body. Synthetic clothing will therefore help you better regulate body temperature if you get wet. At the very least, a polypro or fleece shirt can help you avoid hypothermia by keeping your torso warmer and dryer than cotton. Coveralls are usually made from either

cotton, nylon or PVC. Each have advantages and disadvantages. The type you use will depend on what you feel is important to you. For example, cotton is inexpensive but not very durable, while nylon is usually pricey but rugged. On the other hand, PVC is rather durable and easy to clean but is very expensive and extremely hot. Most people, (me included) wear nylon coveralls because they believe that it is probably the best material overall. Make sure that you are dressed so that you will be warm with the expected cave temperatures and that you will have an acceptable range of motion when you are wearing this clothing. If you know that you will be inactive for an extended period of time consider bringing along (but not always wearing) a second fleece or polypro top for when you are going to be cold.

Chances are, when you engage in strenuous activity you will get too warm. This will be especially true if you are wearing multiple layers of clothing. In this case you will appreciate being able to take some of the layers of clothing off and store them in your pack until you need them again. Most people (including me) usually sweat for at least some portion of a cave trip, so plan accordingly.

Whatever you wear, you should go with the assumption that you are unlikely to ever get the dirt out of these clothes. Clothes that go into caves get a “cave tan” and it seems like no amount of washing will ever get rid of the stain. You should plan on these clothes being permanently stained by the cave. An additional consideration is that some cave passages seem to be able to shred clothing in a hurry, so your clothing needs to be rugged.

Wear socks that will not give you blisters and will not let your feet get too cold if you get them wet. Some people wear two pairs of regular socks. Wool socks are nice because they will do a good job of keeping your feet warm, even when they are wet.

You will need gloves that allow you to have a good, firm grip. Gardening gloves work fine but your hands can get muddy and wet in them. Some people do not like that because they want to keep their hands dry and clean for as long as possible. For those people, leather gloves are the best solution. Like the rest of your clothing, your gloves need to be rugged and able to endure the cave environment.

People with long hair need to be able to tie it back,

preferably in a bun. It is best if the hair fits under the helmet. Long hair which is not tied back will get dirty or, worse yet, could get caught in a rack while on rappel. If that happens the hair usually must be cut off where it gets caught. Obviously, that is not good- for a number of reasons. (More information on vertical caving is coming in a future article.)

You will want to wear knee pads, especially if you are going to be doing a lot of crawling.

Boots need to have a rather firm sole and at least a little bit of tread. More tread is ALWAYS better. You must be comfortable climbing with these shoes and moving over tricky, unfamiliar terrain. Do not use sneakers or shoes with leather soles; neither is good. Leather soles tend to be slippery in the cave and sneakers tend to bend and get caught in cracks and crevices.

Bring a complete change of clothes to ride home in, especially if you decide not to wear coveralls. It is quite likely that your clothes will be very dirty and wet and no one will let you ride home in their car without completely changing first. You should have some place to put your clothes once you have changed. It is best to put your clothes in a large plastic bag, but anything that keeps them from getting all over the inside of the car will be good enough.

GEAR

Each person on the cave trip has to have a helmet. Your helmet should be UIAA-approved and have a 4-point chin strap. It also needs to fit comfortably and have good structural integrity. You must have at least one light mounted to your helmet and you may want to consider mounting a second light, just in case your primary light goes out for some reason.

You should never go underground without at least three sources of light and sufficient extra batteries (or carbide) that your sources of light will be able to last at least twice as long as the planned trip. Remember, the objective of these light sources is for you to see well enough for you to get out of the cave after your primary light source has failed. There are, for example, some watches which provide an amazing amount of light when the dial is lit up. While you could probably technically use that watch to get yourself out of the cave, it would be slow-going and dangerous, especially in a large room with lots of breakdown. You may also want to avoid the temptation to put all of your spare sources of light on your helmet, since you would be in a world of hurt if it were to fall off of your head and get someplace where you could not recover it.

You will need a pack which has room to carry things like food, water, extra clothing, spare batteries and any-

thing else you might need, like vertical gear. The kind of pack you take is up to you, but packs made for caving usually have a handle on the top that will help you carry them through the cave when conditions will not let you put it on your back. Although you can put stuff in your pockets, you should never allow it to restrict your range of motion. An additional consideration is that things put in pockets can fall out of them and become lost, so plan accordingly. As you pack for your trip you should remember that the cave environment can be very physically demanding, so be sure to protect stuff adequately.

If you are going to be in a wet environment, be sure to put things that are sensitive to water in a water tight bag. Things which are fragile should be put inside a rugged container which will be able to withstand the impacts likely to be encountered on the trip.

It is usually wise for someone in your group to have a first aid kit. What you should have in there is something that could be the source of another complete article, but at the very least you should have a knife, gauze pads, an ace bandage, a large plastic garbage bag or space blanket and a candle. Caffeine pills are also a good idea in case someone on the trip runs out of energy while still in the cave.

Food is very much a matter of personal preference, but you should always bring some on every trip underground. Energy food and candy is excellent for shorter trips but you need to be able to package it in such a way that it will not be smashed while it is in your pack and you are moving through the cave. On longer trips I have found that a trip to a supermarket to buy canned food with a pull top is a good idea. It is very easy to eat this stuff in a cave. It is not easy to heat food however, so unless you have an MRE with a heat pack, expect to eat your food cold. Be sure to bring plenty of fluids too. Although any non alcoholic liquid (energy drinks, gatorade, soda, etc.) will work, water is best since it can also be used to clean wounds and flush eyes.

Prior to actually going underground, all equipment should be checked to make sure that it is working properly. If last minute repairs or adjustments need to be made to the equipment, they should be completed before you get underground.

A good cave trip starts with good preparation. Taking the time to "do it right" will, among other things, keep you both safe and healthier and reduces the likelihood of a rescue in case something goes wrong on your trip. Now that you have properly prepared for your cave trip, it is time for you to get underground and enjoy the cave. Until next time, happy caving ...