

NSS NEWS

JANUARY 1998



CALENDAR

U.S.A.

January 10-11—Eastern Region NCRC Pack & Transport Module. Winfield Firehall, Winfield, MD. Contact Carol Tiderman at (410) 792-0742 or e-mail: tiderman@erols.com. Second contact: Alison Hazen at (301) 271-2528.

January 31, 1998—National Cave Rescue Commission (NCRC) Winter Business Meeting, DuBose Conference Center, Monteagle, TN. For more information contact Butch Feldhaus, NCRC National Coordinator, at bfeldhaus@compuserve.com, or (423)238-7009.

February 7, 1998—Quarterly meeting of the Southeastern Cave Conservancy, Inc. at ITT Technical Institute, Birmingham, AL (10:00am CST). Contact Scott Fee (205) 854-PITS or scottfee@usa.pipeline.com or www.scci.org

February 16, 1998. Deadline for submitting annual Internal Organization reports. Later reports accepted but may not be processed in time for listing in annual *NSS Members Manual*. Contact: Evelyn Bradshaw, 10826 Leavells Rd., Fredericksburg VA 22407 (540) 898-9288.

March 7-8, 21-22, April 4-5, 18-19—NCRC SoCal Seminar '98: Cave Rescue Operations and Management, Level I/II. Presented over four weekends at locations in southern California. For information contact Bryan Lavender (909) 387-0686 days or visit the web site at: www.co.san-bernardino.ca.us/sheriff/voluntrs/socal98.htm

March 20-22, 1998—NSS Board of Governors/Winter SERA Meeting, Huntsville, AL. Hosted by the Huntsville Grotto. The Friday night party will be held at the NSS Office with lighted tours of Shelta Cave. For additional information contact Camille Duke at (205) 882-6586 or e-mail at manager@caves.org.

March 20-22, 1998—Florida Cave Cavort '98. To be located in the Tallahassee area of North Florida. Co-sponsored by the Central Florida Cavers and the Flint River Grotto. Visit some of the area's finest caves and make new friends and renew old friendships. Contact Carl Reiche 531 Ventris Court, Maitland, FL 32751-5562; (407) 644-9444 or e-mail reicheisland@juno.com

May 1-3, 1998—Virginia Region spring meeting, hosted by New River Valley Grotto. Camping at Horseshoe Campground, 8 miles from exit 92 on I-81. Fee is \$20. Free camping Thursday night. For the latest information see www.runet.edu/~jfox/nrvg/vars98.html

May 1-3, 1998—Black Hills Cave Restoration Camp. Lintand trail debris removal, formation cleaning. Limited to 20 volunteers. Two days will be spent at Wind and Jewel Caves. No registration fees, housing provided by NPS. For info contact Jim Nepstad at (605) 745-1158 or Jim_Nepstad@nps.gov. Application deadline is March 13, 1998.

May 8-10, 1998—1998 SERA Summer Cave Carnival hosted by the Nashville Grotto, Indian Creek Campground, Chestnut Mound, Smith Co., TN. Contact information to be announced.

May 22-24, 1998—NSS-CDS (cave diving section) Annual Workshop. Holiday Inn, Lake City, Florida. For more information contact Marianne Gamble, (904) 935-2974, marianne@hankins.com

May 22-25, 1998—27th annual Kentucky Speleofest, Temple Hill, KY. Fifteen miles south of Glasgow, KY, 30 minutes from Mammoth Cave.

Hosted by the Louisville Grotto. Contact Alex Hicks, (502) 499-0768 or Glenn Driskill, (502) 862-4054, for pre-registration.

July 10-12, 1998—Karst-O-Rama 98, Great Saltpetre Cave Preserve, Mt. Vernon, Kentucky. Hosted by Greater Cincinnati Grotto. For more information contact: James Clements, K-O-R Chair, 5529 Taylor Mill Road, Taylor Mill, KY 41015; phone: (606) 655-9558; e-mail: Karstguy@MSN.com Pre-Registration contact: Mark Seyfang at (513) 662-2989.

July 20-23, 1998—Colorado Rat Roost '98'. Strap on your brain buckets! It is almost time for the best caver party of 1998. To be held in the seldom visited Taylor Park region of Colorado. \$20 covers camping in an alpine setting, 3 meals, beer, music and caving good times. Please preregister. For more information, contact Mike Frazier (719) 475-1492 or Dan Sullivan (719) 598-8881 or Caverdan@aol.com.

July 25 - August 1, 1998 - The National Cave Rescue Commission (NCRC) presents the 1998 Cave Rescue Operations and Management Seminar at the DuBose Conference Center, Monteagle, TN. Contact Butch Feldhaus at bfeldhaus@compuserve.com, or (423)238-7009, or Nancy Chrimes, Seminar Registrar, at nrcr@compuserve.com or (540)992-3665

August 3-7, 1998—NSS Convention, Sewanee, Tennessee. Contact: William Shrewsbury, PO Box 4444, Chattanooga, TN 37405-0444; (423) 886-3296; nss98@caves.org

Sept. 11-13, 1998—34th Annual Hodag Hunt and Fall North Country Region Meeting, sponsored by the Wisconsin Speleological Society at Quiet Woods South Camping Resort, 9245 Lovers Lane, near brussels in Door County, WI. For info contact: Gary K. Soule, 224 South 7th Avenue, Sturgeon Bay, WI 54235-2216, (920) 743-6488.

July 12-16, 1999—NSS Convention. Twin Falls County Fairgrounds, Filer, Idaho. Contact: David W. Kesner, PO Box 1334, Boise, ID 83701; (208)939-0979; email drdave@micron.net

INTERNATIONAL

Jan. 31-Feb. 14, 1998—8th International Symposium on Vulcanospeleology with field camps and excursions, Nairobi, Kenya. USA contact: Bruce Randall, 324 Questend Ave., Pittsburgh, PA 15228; (412) 344-0356. (see Feb. '97 NSS News, page 57)

March 6-12, 1998—20th Anniversary of the "Che Guevara" Speleological Group, Matanzas, Cuba. Open to all interested cavers. Caving, camping, seminars. Registration fee of \$100 U.S. includes food, camping, and transport (except airfare). Info: Prof. Pedro Pablo Gonzalez Castro, Sociedad Espeologica de Cuba, Novena No. 8402 esq. 84, Playa CP 11300, Ciudad de la Habana, Cuba Phone: (537) 22-5025, fax: 24-0438 or 24-2985

October 5-10, 1998—"SUBCITY '98" Meeting on Caves of Natural Origin Under Cities & Urban Areas, Budapest (+Aggtelek), Hungary. Contact Nora Fleck, Hungarian Speleological Society, H-1027 Budapest, Fo u. 68. Phone/Fax: (361) 201 9493, E-mail: MKBT@mail.matav.hu

Sept. 12-18, 1999—9th International Symposium on Vulcanospeleology of the IUS, Catania, Italy. Contact: Giuseppe M. LICITRA, Centro Speleologico Etneo Via Cagliari, 15, 95127 CATANIA, Italy licitra@mail.asianet.it

Further International events can be found on the UIS International Speleo Calendar at: <http://rubens.its.unimelb.edu.au/~pgm/uis/events.html>

Send information on coming events to the NSS News, 320 Brook Drive, Boulder Creek, CA 95006; nssnews@caves.org

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Complete advertising information, including ad costs, deadlines, and guidelines for preparation, are on the web at:

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NSS NEWS

AMERICA'S CAVING MAGAZINE

JANUARY 1998

VOLUME 56 NUMBER 1

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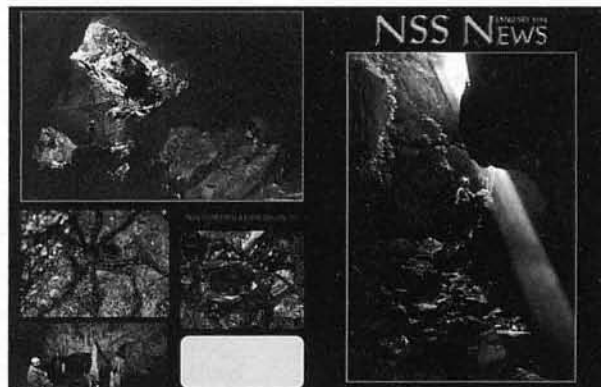
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ABOUT THE COVER



This month's cover photos are from the 1997 NSS Expedition to the Santa Cruz Mountains, Peten, Guatemala

Front cover: Pot Cave entrance, by Carl Reuter

Back cover, clockwise from top:

1. Entrance to Tamagas Cave, by Carl Reuter

2. Crab found .5 km into Tepesquintle Cave, by Dennis Worthington

3. Formations in Tepesquintle Cave, by Carl Reuter

4. Spider in Pot Cave, by Dennis Worthington

LETTERS

RESEARCH OPPORTUNITIES IN ONYX CAVE, ARIZONA

Onyx Cave is a moderately large cave in Santa Cruz County, southeastern Arizona, with an estimated two miles of passage. The cave is primarily horizontal but has some attendant verticality, with a number of pits, at least one up to 150 feet deep. The main passage has a rift about 20 feet deep not far from the entrance, and at least minimal climbing skill is required to enter the cave for any appreciable distance. The cave is well decorated with many speleothems, including shields and helictites. Although moist in many places and wet in some, there are no running streams and few pools. The cave is presently gated and access is controlled by Escabrosa Grotto. A key is available to qualified groups wishing to enter. The cave has been used almost exclusively for recreational caving.

Onyx cave has research opportunities in a number of fields, and Escabrosa Grotto is inviting research proposals from qualified individuals and groups who may wish to pursue some investigation in the cave, provided that those investigations do not interfere with recreational activities. Limited areas in the cave may be set aside for exclusive use of the researcher, if necessary. No electric power is available, but unpowered and battery-powered instruments may be installed on a temporary basis.

Because of safety considerations, personnel unfamiliar with the underground environment would be required to make one or more orientation trips with Grotto members. To avoid scheduling problems, regularly scheduled visits would be recommended. A brief report listing the personnel on a trip, time of entry, site in cave visited, and time of exit would have to be submitted for each trip.

Prior to any cave activity, the principal investigator should submit a research proposal to Escabrosa Grotto, listing the goals of the investigation, methods employed, number of personnel required, probable time duration of the investigation, and number of support people required. The investigator should also submit a resume of his/her vocational, avocational, and academic background pertinent to the study. This opportunity is not limited to professionals; graduate students and non-professional research workers are invited to apply.

TAG TYROLEAN EVENT

Once again I find myself tipping my hat to someone among these pages. This time it goes to Mike Larson and his letter (October) regarding the "TAG Tyrolean Event." He demonstrated the true spirit of what, I believe, being an NSS member is all about. He

challenged Mr. Cuddington (and all of us) to stand up and judge truth and experience for ourselves. (Of course we realize that his final figure of 0.09% for "medical treatment injury" was not only carried to the next highest significant figure but still had to be multiplied by 100 before it could be calculated as a percent.) Pretty good results in my book. One must wonder what the "medical treatment injury" percentages are for sport events such as hang gliding or skate boarding. Other than a couple of minute changes in the calculations of the laws of physics, anyone hang gliding or skateboarding isn't going to purposely discover new passageway or new types of ecosystems by participating in these sports. Not to mention all of the new geophysical data that could be out there just waiting for discovery. Yes, with discovery does come risk. But we as NSS members, and as cavers, are well acquainted with risk. We decide how much risk we take. We are also good at conveying those risks to others so that they may decide for *themselves*. That's why our backpacks can become cumbersome and heavy. We know the odds of survival in some of the most inhospitable areas in this planet. To some of us a Tyrolean traverse is merely a walk in the park. And that's the man, or woman, that I want there to rescue me (God forbid) should a Tyrolean traverse be our only way out.

Bill Wilkerson
NSS #27593

CORRECTIONS

The two maps in the October *News* really looked great and they sure copied well. But note that Hazel Barton and the Kazumura bunch did not win co-Cart Salon Medals, as stated. They each won a medal, which meant we gave two medals. This was done twice before in the Cart Salon, in 1981 and in 1992.

George Dasher

Phil Moss wrote noting corrections to the captions on two of his photos in the October issue color centerspread. "Paradise Falls" should be "Promise Falls" and the shot labeled "Main passage in Rimstone River" is of the Ocean passage in that cave.

John Wilson, recipient of this year's William J. Stephenson Outstanding Service Award, writes that the article on the award in the October 1997 NSS NEWS was accurate except for one item that stated he had "served as Chairman of the Virginia Region..." But he notes that he has never held this position.

Tom Miller notes the date of the second survey on his Close-to-the-Edge map in the December issue should be 1994, not 1984.

Bill Mixon noted an error in the ordering

info in his review of the IUCN Guidelines for Cave and Karst Protection in the November NSS *News*. The correct price is \$15 or 10 pounds sterling.

Paul Steward's name was inadvertently "squeezed" out as guest author of the Virtual Caving Column about the Colossal Cave Adventure Game in the August *News*. And Fred Dickey (NSS #4819) wrote taking exception with Paul's statement that the game is based on "actual passages in Bedquilt Cave, a part of the Mammoth Cave System and not Colossal Cave as the title implies". He indicates that Bedquilt Cave was indeed considered to be part of Colossal Cave in the pre-connection days, when he was active.

NOVEMBER ISSUE "BABE" PHOTO

I love the new *News*. Color adds so much. Enjoy the articles. But I have a problem with the inside cover photo of November. Cute girl but isn't she all over the columns? I've been taught "hands off". I understand that there are times which touching formations cannot be avoided and maybe the photo is one of those situations. Maybe that was the only path. From looking at the photo I feel otherwise. The formations don't look like they have seen any traffic. Also as I look at the photo again I notice no helmet. Maybe it was removed so we could see the cutie but again I feel that this could promote a practice that is also contrary to the basic practices of the caver...I do feel that the collective "we" preach the wear-a-helmet-3-lights-don't-touch-etc. and that photos such as this may tell outsiders that we don't practice what we preach and possibly encourage such practices, regardless of if the little girl was doing anything wrong or not. We must remember that people are watching us and our apparent example.

Mike Hill

(Ed. note: This letter combines two Mike sent via e-mail. He makes a point I'd not considered, i.e., what impression might a new or non-caver be given? Since this was a Photo Salon shot I'd not hesitated using it, as all Salon photos are supposed to meet a criteria of not depicting flagrant conservation and safety violations. But this is clearly a glamour shot, and was likely entered in the "surreal/experimental" category which includes shots in "atypical attire". This is a valid category of speleological art—but should there be a disclaimer printed when running such photos, pointing out that they don't depict safe caving practices? As for touching the formations, it's not clear that she is actually touching the formations as you can't see her hands. She may have clean gloves on (compare also to the Members' Manual cover shot). The Salon gives photographers the benefit of the doubt in this area and so should we.)

NSS Guatemala Expedition 1997

Santa Cruz Mountains, Peten

by Steve Knutson

When you've ventured down deep
in the jungle-cave drains,
And you've gone through a near-
swamp
—and then, "Shit!", it rains!
Push on with the flood, though
there's nothing it gains,
but to go to your God as a caver.
—with apologies to R Kipling

In the evolution of great caves or cave areas, there are several phases. First, a simple scouting trip turns up some interesting entrances. Then one tries to see if these caves will go—is there really anything to them? Are they ready to reveal themselves? In the Santa Cruz Mountains, north of Lago Izabal in east-central Guatemala, Willie Ondricek, Paul Hill and I did the initial scout trip in the spring of 1995 (see *Georgia Underground*, vol 31, No 3, June 1995, pp13-17). Hiking in from the little community of Monte Carmelo, we made camp in a huge closed depression. In several days scouting we found that an obvious *sumidero*, near a main trail, didn't go but that there were numerous other possible entrances in the forest. One of these was a pit where the sound of a river came from the depths. We had one rope and Willie descended this only to reach the end, some 220 feet down, still short of the floor. In all, it looked promising.

The Santa Cruz Mountains form the low, eastern end of the Cuchamatanes, a mainly limestone range that runs east-west across central Guatemala. It is a fault-block uplift with the escarpment facing south and the more gradual slopes to the north, leading to the very low elevation jungles and farm-land of the Peten. Elevations are highest in the west where it reaches some 3800 meters. The Santa Cruz Mountains represent the low end of the range with high points of 900 meters and a base resurgence level that varies from near sea level to 1-200 meters. It is similar to the Maya Mountains of Belize in that the central spine is of insoluble rocks. This allows stream drainages to develop, resulting in coherent *sumideros* when these streams reach the limestone contact.

On the south, more accessible, side of the range, two such *sumideros* have been checked—the Rio Taquinco, by Cynthia Ream and I, and the Rio San Antonio, by a French expedition. Both of these are large, borehole stream caves. It seems reasonable to expect as good, or better, on the north side. There the limestone makes a complete band from the east to the west across the drainage. Numerous insurgences appear on topo maps at elevations of 2-400 meters. The resurgences are up to 5 km away, straight line.



Carl Reuter at the entrance to Piracy Cave

Also in 1995 Rich and Midori Sundquist and I attempted to scout the resurgences of the eastern end of the mountains. We reached the resurgences of the Chocon, about 20 cfs, and the Tamagas, about 15 cfs. The Chocon was found to issue from a cave with wall-to-wall water and some air flow. The Tamagas comes from a boulder pile at the base of the mountains. Interestingly, the word "Tamagas" is Kek'chi for pit viper and the source of the Carib words "Tommy Goff" that is in common use in Belize. The Fer-de-lance, for instance, is called the "Yellow-jawed Tommy Goff", or "Yellow-jaw", for short.

The setting along the contact zone of *sumideros* on the north side is alternating jungle and milpas with an occasional small community. The limestone band, however, is rugged and karstified, with no surface water to sustain habitations. It is thus virgin tropical forest, a third-world commodity that is getting harder to find.

The 1997 Expedition

Participants:

Rich Sundquist, Placerville, California
Jim Hildebrand, Palo Alto, California
Dennis Worthington, Ruidoso, New Mexico
Jeffery Worthington, Ruidoso, New Mexico
Carl Reuter, Santa Cruz, California
Steve Knutson, Corbett, Oregon

THE APPROACH

The group came together in Guatemala over the course of only a few days, but with

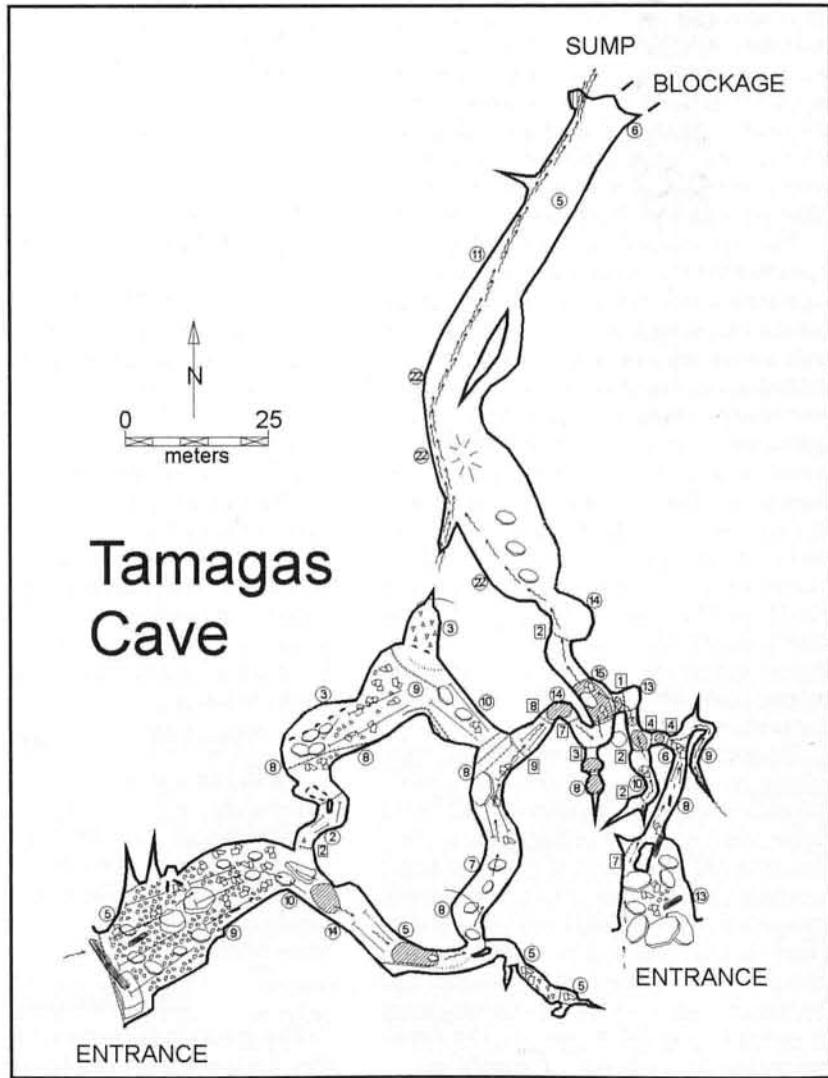
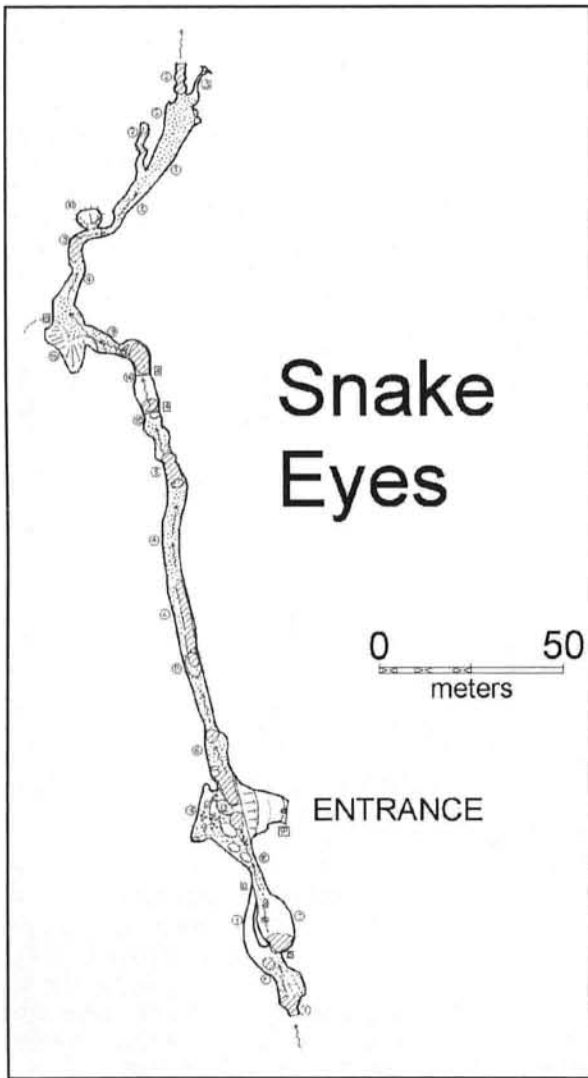
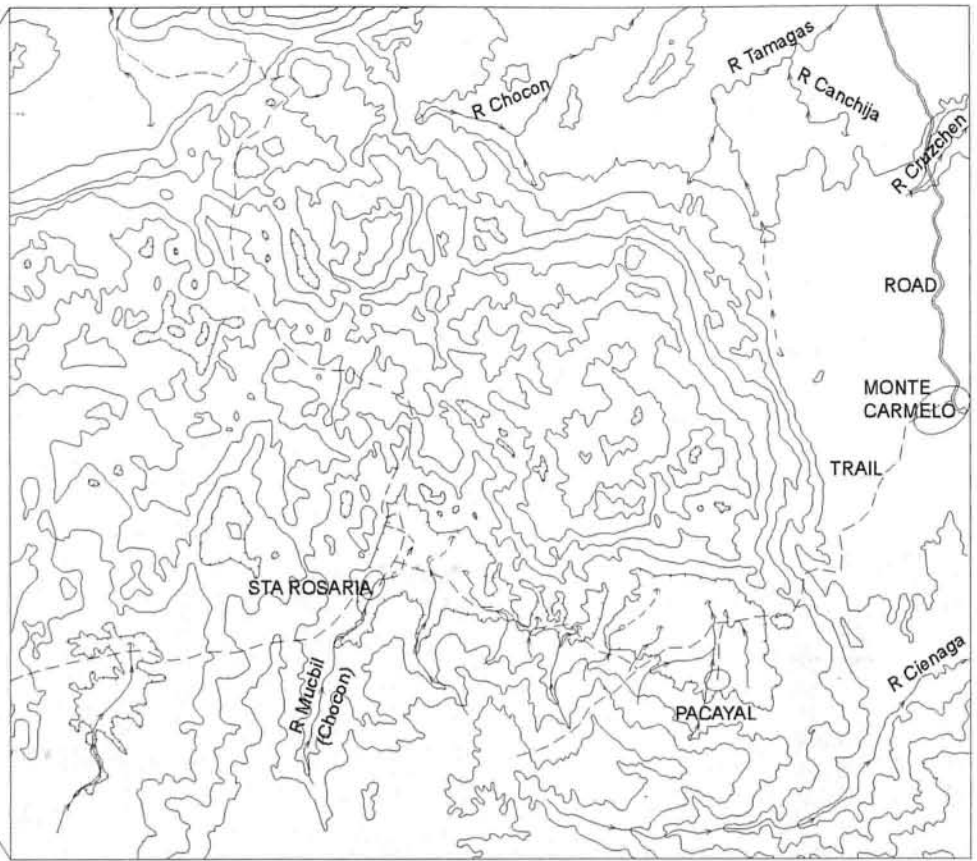
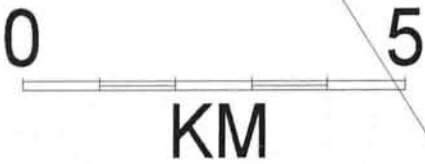
some effort and planning. Dennis Worthington agreed to take his truck down so we would have a capable vehicle. I flew to San Antonio and met him and his son, Jeffery, to help them on the drive south. I had done this several times and had the route perfected. At noon on Friday, March 14, we cleared customs in Reynosa, Mexico and at about 4 pm on Sunday we pulled into Antigua, Guatemala. Rich Sundquist and Jim Hildebrand had flown in on Saturday and were surprised to see us so soon. We sorted our gear, bought food and set out Tuesday morning for road's end. In the afternoon we reached Rio Dulce and picked up the waiting Carl Reuter. It was only an hour or so from there to the little community of Monte Carmelo, at the end of the road.

Some of the locals remembered me from two years before and after a bit of hasseling we had hired a porter for each of the 21 bags. The next morning we were off, across the rolling karstlands.

Now you might think us weinies for not carrying packs but this is the tropics and it is hot and humid, and we had just come from the frigid north. Indeed, even without packs we were hard-pressed. The trail was muddy and so steep in places that no pack animal had ever made it. Eventually even these local hardcores got tired and we straggled into the camp site in little groups. I paid the 30 *Quetzales* (about \$5) each but the guys were no longer happy with this and let us know they wanted more for the trip out...

Steve Knutson

NE PART-STA CRUZ MTNS
 Dept Izabal, Guatemala
 100 M Contours



CAMP

The site was gorgeous—a small, open, rocky streambed running through rich tropical forest to a visible headwall less than a hundred meters away, vines and parasitic plants clinging to this and at the base of it, taking our little stream, the blackness of a cave opening, leading in and down...

We set up our tents in the jungle just above the bank of the stream and immediately stirred up the insect ecology. If you dug, to prepare the tent-site, small biting flies swarmed around; when you chopped it agitated their huge cousins with a proboscis 1/4" long. The latter needed no bare skin—biting through anything but goretex. They were especially nasty in that they focused on activity, biting even if you were chopping with a machete; if you got very still they seemed to lose track of you. Fortunately they were few.

Our kitchen went onto a gravel bar in the streambed where there were some logs to sit on, and Jeffery soon had a dam constructed, creating a pool in which one could lie down and submerge in the 69 degree water. This was a godsend at the end of a hot, sweaty day. Jeffery was the "kid" of the group and did great for his first time in the jungle, though nothing around camp that was choppable with a machete was safe...

Once the disturbance of camp-making was over the flying bugs settled down but we gradually came to realize this was spider heaven. None were really huge, typically 4" across, but they were everywhere. During the day they would hide under things but at night they were active—you did not want to leave your tent even a little bit open. Then one night Carl spotted a scorpion on his tent, about 4" long with its tail curled.

The appearance of any critter grotesquery in the daytime would usually cause Dennis to haul out his camera setup for a close-up—often an entertaining operation. I admired his equipment, which included a track-mounted extension bellows with built-in modeling lights and flash, but his enthusiasm was sometimes a bit much. Once I was eating and he came up with a gleeful look and gloved hands cupped together. He thrust these in front of

me and opened them—they were barely concealing a huge spider. Thanks, Dennis.

One irritation was the chigger bites collected on the hike in. The chiggers hatch on bushes next to travelled trails and get on you as you brush the vegetation. They are like a tiny tick that burrows into your skin. In some areas you can get ticks this way as well, but thankfully we saw none of those. In the dry season mosquitoes are scarce but we were taking Chloroquin as a prophylaxis for malaria.

Probably the only real danger was snakes. The locals referred to our stream as the Tamagas (pit viper), apparently assuming it was the same as the resurgence of the same name. Our notion was that snakes would be most active at night so we tried to be back to camp before nightfall each day. An authoritative reference work had informed me that both the Fer-de-Lance and the Cascabel (the Central American rattlesnake) are "dangerous", which in this book meant that a "serious envenomation" would probably cost you your life unless you got to a hospital immediately, which was impossible out here in the jungle. The rule, then, was not to get bitten.

Jaguars were another potential danger, considering that everything north of us in the mountains was a wilderness. Authorities believe the Jaguar does not prey on man. Still, three of us were awake one night when a large cat of some kind was heard snarling nearby. For several days I couldn't bring myself to go off scouting alone.

On the lighter side, there were beautiful butterflies and birds to accompany the green exotica of the lush tropical forest. Hummingbirds would come and take a bath in our pool, something I had never seen before. Also, locals from the next community



Steve Knutson

Jim and Carl return to camp after a trip to Pot Cave

along the trail started dropping in at the end of the day to be neighborly and sell us a little local food. This was very welcome, especially the tortillas and corn cobs, since we had some big eaters in camp.

All in all, it was paradise, and our cave leads were right next door...

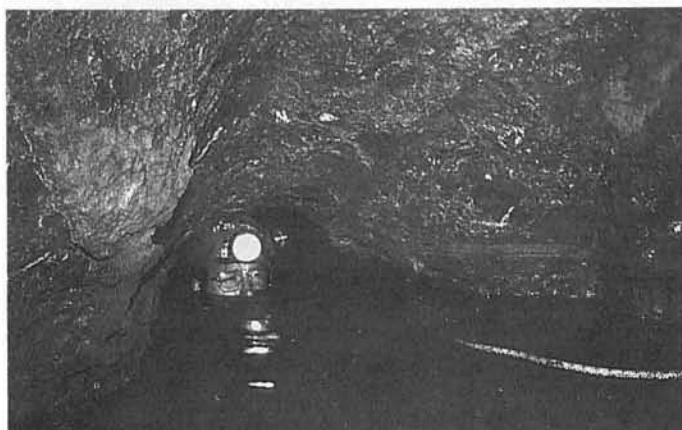
THE CAVES

The Tamagas *sumidero*, at camp, had been pushed two years ago. The main passage became borehole but the ceiling came down after 200 meters and the passage ended. There were still leads in this cave but our current initial focus would be the Snake-Eyes Pit in which Ondrichek had short-rope. But first I had to find it again.

The second day after making camp I set out to locate the pit and get a trail chopped. I feel that cave discoveries are somewhat psychic and it works best if I am alone. So I told everyone that I was going and set off. A couple of hours later I felt I was getting close when up the trail I had just chopped came Rich, Jim and Carl, with maybe a thousand feet of rope and all their cave gear. "Where's the cave!?", they wanted to know. Suddenly I had no idea...

SNAKE-EYES PIT

I eventually found it and our longest rope (about 350') was rigged to a tree and a couple of natural anchors. Carl and Jim descended and found the drop magnificent, a huge, broad, flowstone cascade all the way down. There were just a few feet of excess rope on



Jim Hildebrand

Rich Sundquist pushes water passage in Tepesquintle Cave

the bottom of the 97 m (330') pit. Ondrichek had been nowhere near the bottom. They scooped upstream a short way to a sump but left the downstream passage.

Jim and I returned the next day to map and push. The way downstream was sometimes only walking height but often 10 m or more high. The stream seemed much smaller than the one at camp. It cascaded over short drops and down the gently descending passage. At a difficult traverse above a deep pool we set up a handline. High leads appeared to come in at two places in the form of voids lined with beautiful golden flowstone cascades; Jim's efforts to climb got him up high but short of holds.

About 250 m downstream the ceiling came down and we crawled a short way to a sump. We tried all leads but got nowhere, though one crawl got Jim to a point where he could hear running water, the sound coming from beyond a constriction. Still, there was no air flow so we gave it up. The survey, including the entrance pit, totalled 417 meters.

THE TEPESQUINTLE CAVE

On the scout trip two years before, locals had come by camp with rifles and dogs, going on a hunt. One of the dogs had a piece missing from his lip and it was said that he lost it in a fight with a Tepesquintle (as close as I could phonetically spell what they said) which we came to understand to be a very large rodent, possibly like the South American Capybara. While scouting in the area between Tamagas Sumidero and Snake-Eyes, I found a small cave with a trap for Tepes. They had blocked the entrance and left a runway about a foot wide over which a platform weighted with big rocks made a deadfall. So these things apparently frequent cave entrances, eh? Nice thought.

On the current search for Snake-eyes, distracted by the three guys with full gear, I blundered into the Trap Cave. Just beyond it was another, smaller opening. Checking this, I realized that it appeared to be bigger inside and go down a drop of some sort. I showed Carl and continued searching for Snake-Eyes.

While Jim and I were in Snake-Eyes, Rich, Dennis and Jeffery pushed into the cave, which we simply called "Tepesquintle Cave". They quickly found it to be complicated and interesting. Down the drop at the entrance it forked, one branch having some air flow but needing an additional rope. The trio mapped 150 meters which was accessible, the highlight being Rich's forcing of a 4" air space. When he decided to go for it his companions were focused on something else and turned around to simply find him gone. Beyond the near-sump he had found a large chamber, but, alas, it was one they had already seen.

The next day, Sunday the 23rd, they returned to the airflow lead but ran out of rope at a drop into a large passage. One outstanding discovery was some golf-ball-sized cave pearls.



Dennis Worthington

**Jeffrey Worthington
by the tepesquintle
trap, outside
Tepesquintle Cave**

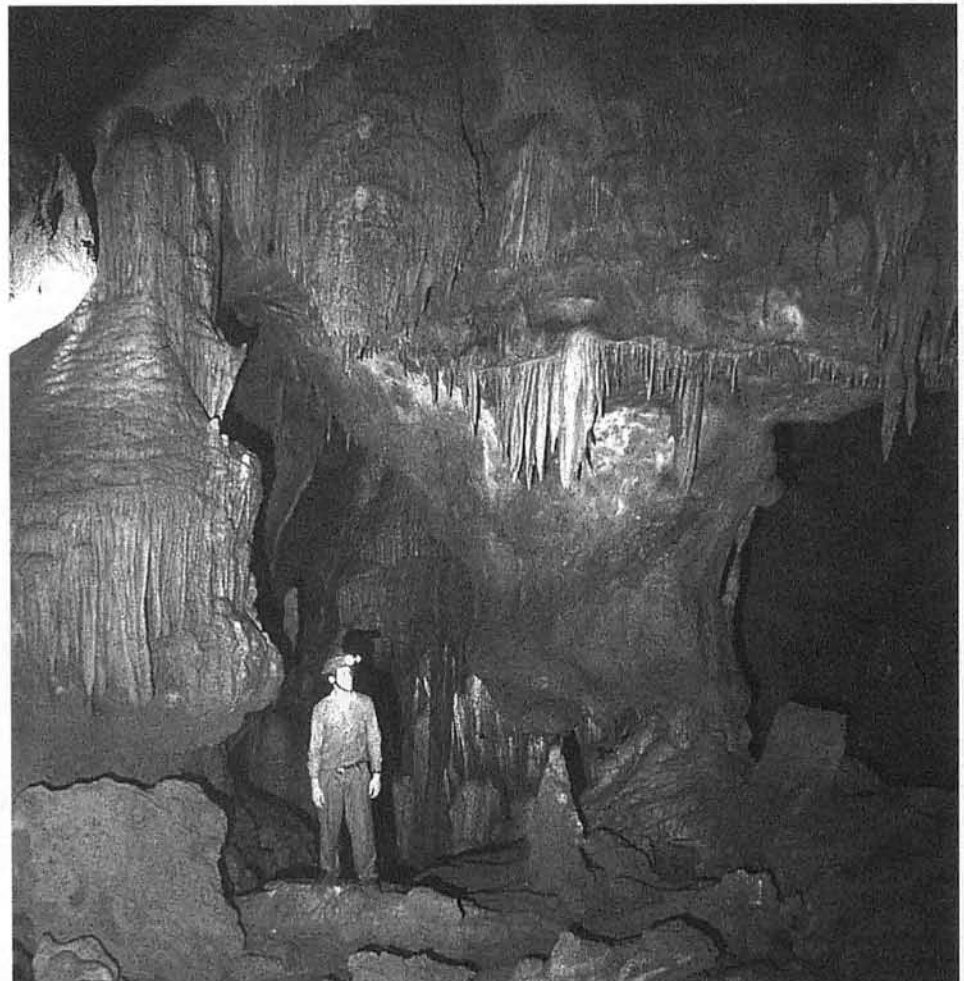
Jim and Rich returned yet again and got into a wonderful, descending stream passage. Short waterfall drops and deep pools wound down, seemingly forever—but suddenly ending in a sump pool. Total traverse for the cave was 674 meters.

THE FLOOD

One night it rained, with lots of thunder and lightning. In my tent it was hard to tell how heavy the rain was, since after it hit the trees and other vegetation, it just dripped onto

the tents. Thus when we got up in the morning, we were surprised to see that the Tamagas was in flood. It didn't rise over the banks to our tents, but was running through the kitchen and washing away gear left in what had been the dry parts of the streambed. Nothing of consequence was lost, but there was quite a melee as cavers dashed to catch their boots and other gear.

The highlight was Rich, who was sleeping in the nude due to the heat. To catch the activity on video, he jumped up and appeared



Carl Reuter

Formation area in Tepesquintle Cave

wearing nothing but sneakers and his video camera.

A sobering thought was what might have happened had we been in a stream passage when the rain came. Obviously this was not an area where the "Dry season" was aptly named.

WILLY/PAUL CAVE

On the scout two years ago Willy and Paul had found a dry streambed leading to a cave that they descended for about 30 meters, and stopped for need of rope. It looked good. While the Tepes effort went on, I set out to find it.

By then I knew the terrain pretty well and chose the correct streambed right away. But it was running water about as heavy as the Tamagas (our camp stream, about 2 cfs). I followed it down and suddenly came to where it plunged into a hole in the vertical right wall of the Quebrada. So, this is why Willy/Paul Cave is dry! The water had been pirated. You could downclimb the first 10 feet to the top of a serious-looking pit, only a couple of meters in diameter, and filled with fire-hose spray!

On down the now-dry streambed, I soon came to Willy/Paul Cave. Now I only needed to hack out the route back. This went ok until I tried to take a shortcut and found myself in dense vegetation, slipping at every step on the slimy ridgeside, under attack by the big biting flies and in an area with many thorn palms. After being nailed in the back of the leg by one of these, I lost it. I started ranting and bailed out, moving through the forest without chopping, and made my way back to camp as best I could. I finished this trail the next day.

On Tuesday the 25th, Dennis, Carl and I went to see if Willy/Paul Cave would go. Just past the short, entrance climb-down, we came to a longer drop that we put a rope on—but Willy and Paul had explored without ropes, correct? Right away was a short pit that really needed a rope. Just beyond this we started to see mud and the next descent led to a mud sump. Another no-go. Dennis and Carl pushed what leads there were: Carl up a slot that led to more climbs in what was obviously an in-feeder, and Dennis up a vertical body-tube just above the sump. Suddenly there was scrambling and a yell and down came Dennis, landing in a heap on the mud floor. He continued to make painful noises so we asked if he was ok. He was, but not quite whole, as he had lacerated himself a bit on sharp edges as he fell, as well as banging an arm. The worst scratches were on his right butt-cheek. It looked, in fact, like he had barely got away from a Jaguar. We decided that would be the story to tell back at camp. The survey to the end totalled only 103 meters.

MID-TRIP REFLECTIONS

After a week of activity we'd pushed several caves, but they'd all led to sumps. This wasn't the way it had gone in my pre-trip

fantasies. Where you could see bedrock structure, it was dipping generally south. Perhaps the water carving the caves was zigging down when it hit more resistant strata. Perhaps, but we weren't out of leads or time yet. The Tamagas Sumidero had leads and the Piracy Cave, upstream from Willy/Paul Cave, had not been pushed at all.

On the plus side, everyone was more or less in good health and getting along with each other. The food looked adequate for the rest of the stay, if a bit bland. The local people hadn't given us any trouble but we continued to take turns watching camp each day.

THE PIRACY CAVE

On Thursday the 27th, Rich and Jim pushed into the Piracy Cave.

Here is that episode in Rich Sundquist's own words:

"It may have been the only time I've looked at a virgin cave entrance and not wanted to go in...a one meter diameter vertical tube that swallowed a stream draining a sizable valley. Depth of the entrance drop was unknowable because the crashing water obliterated all sight and sound. Flood danger was extreme.

I had quite a debate with my subconscious before I convinced myself that I should get on rope. I badly wanted to check it out...I just didn't want to die. Often cavers view fear as a weakness, and I suppose unreasonable fear is, but there are other times when fear is simply good advice.

At Piracy cave, I had the distinct impression I was getting good advice. There was something about such a large valley draining into such a small hole...about the logs jammed in around the entrance...about having seen our kitchen washed away by a

modest rain a couple days before. And I couldn't help but remember how Midori and Steve came within 30 seconds or so of being flooded in another Guatemalan cave back in 1995. I also knew that rain was common in this part of Guatemala, even in the dry season.

The drop proved to be only 15 meters, and it did open up into a small room, but there was no doubt that the entrance flooded completely during large rainstorms, and staring up at the hole in the ceiling I could imagine the one-meter cylinder of vertical water that would crash down the drop.

Jim and I found ourselves in walking passage that headed both upstream and down. We first surveyed upstream in the hopes of finding a more flood-friendly passage, but there was none. We then pushed downstream, and after 50 meters or so the ceiling lowered to crawling height, and I think we both started worrying about the weather again. We came to a short drop and rigged a rope. After a section of walking passage, the flood danger really began to mount as we encountered long crawls interrupted by occasional downclimbs or rappels. The passage was not only low but narrow. We intensely wondered what the weather was like outside, but we tried not to voice the concern too often.

We surveyed like this for 300 meters or so, often belly-crawling. My subconscious strongly suggested I turn around. There was too much water and too little air; there were too many ropes, crawls, and climbs between us and the surface; and we knew that any rain pulse would come as a wave. We cracked jokes but the laughter was awfully nervous.

Finally we reached a flowstone, bedrock and boulder blockage. The possible continuation was small. My subconscious



Rich Sundquist on rope in Piracy Cave

Carl Reuter

could see from three meters away that no human could fit. It told me to get out. Time to leave. The only way I could convince my subconscious to let me attempt the squeeze was if I agreed to abandon the survey and just check...for a minute before heading out. I ditched my pack, unhooked my battery belt and forced my body through the squeeze. A few meters ahead I came to a 4 meter waterfall, but we were out of rope...

At the entrance rope we ascended...to be greeted by a perfectly blue sky...

Once a trip like this is over it's easy to take the happy result for granted or even think that somehow you yourself made it work out. But that's all bull. It wouldn't have taken any great act of nature to have extinguished us. Thank God it didn't rain...and I got away with ignoring my subconscious."

Two days later Rich, Jim and Carl returned, their courage renewed. They were hoping for a breakthrough and proceeded to the end of the last push with grim determination. This led to a very terminal sump, just 39 meters beyond the four-meter falls. Total length was 496 meters—and another cave sumped.

SCOUTING FOR MORE

We were running out of cave! If something didn't pop soon, we would be through. You could see this coming so we set out to see if there was something we were overlooking in the area.

Two years ago we had got to the sumidero of the "Rio Mucbil", shown on the topo map and what had attracted us here in the first place. Mucbil, by the way, means "underground river" in Kek'chi. Unfortunately, no one we talked to here had ever heard of the name. They called this stream the Chocon, presumably in reference to the resurgence of the Rio Chocon at the base of the mountains. Willy and I had gotten into cave passage at the *sumidero* of this stream but it wasn't much, had no air flow, and immediately went through a nasty seasonal sump that would surely snap shut if it rained.

The first day after arriving this trip, Jim, Rich, and Carl had hacked their way up the first paleo-valley west of camp, finding little. Now we continued the scouting, with more purpose.

On the 26th, Rich, Dennis and Jeffery hiked on to Santa Rosario, the next community. On the way back they checked the next stream, following it to where it went in, but there was no cave. Nearby they found a small cave with an inviting breeze blowing out. But the cave ended right away, the air apparently coming from an adjacent higher entrance.

One thought was that we needed to get into the drainage system further along, where combining streams might create a more substantial passage. Thus the next day, Carl

and I headed up the paleo valley containing Snake Eyes and the other entrances, to see what was above, on the main mountain mass to the north. To scout, the best way was to slide through the jungle without chopping. The chopping was hot work and stirred up the big, biting flies as well. The downside was that you had no trail to follow back and you might blunder onto a snake. Also, you really had to watch for the damn thorn palms.

At the head of the valley the only way on was steeply up, and more up. At times you actually had to climb little rock faces, using mostly vegetation holds. We reached the crest at about 780 meters and cut west to get into a high paleo valley. In this there was a sink but it didn't go. Time was now against us; don't be out in the jungle after dark! So we headed south, following a ravine down the side of the mountain. The only good karst we found was just before we got back to the cut trail to Snake-Eyes.

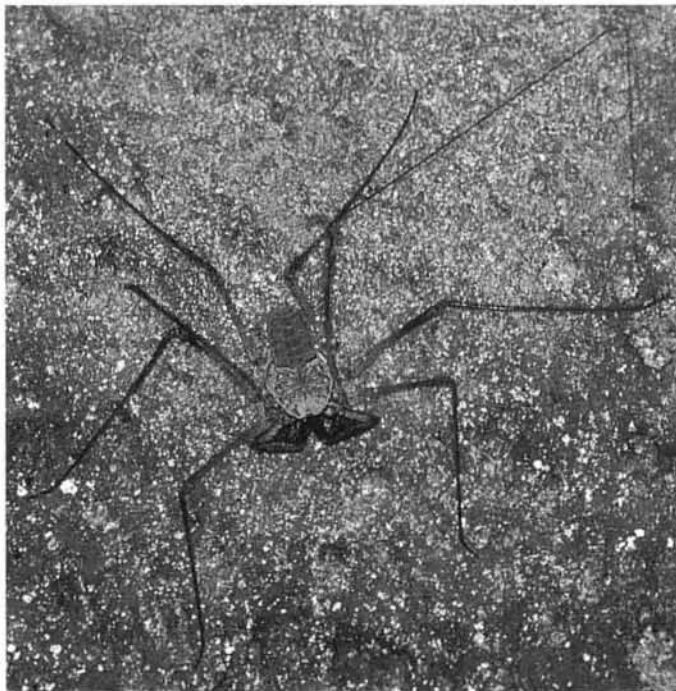
On the 29th I went to the second stream/paleo drainage to the west, and checked it up to the base of the main mountain, then turned west. I soon hit corn fields and knew I must be near the trail to Santa Rosario. At the edge of one field, the vegetation obviously covered a sizable opening. When I stepped into this, I was amazed—it widened 30 meters to either side and ledges dropped to a broad floor, some 8 meters below. Ahead and as far as I could

see to the sides was a huge passage, with large stalactites and flowstone draperies at intervals. I got out my light and hurried on, but whatever direction I went, there were just walls. It didn't go—just a large, remnant chamber. I left, found the main trail and completed my swing at the cave which Rich, Dennis and Jeffery had found three days before. Back to camp.

Finally, Jim and I took a trip over to the huge Pacayal doline for a look at what might be on the mountain to the north in that area. It took us a while, in the blazing sun, to find a trail that led up out of the milpas. This took us as far as where a man was clearing forest for a new corn field—then we were on our own. We reached the crest and got into a small paleo-valley but the few small sinks failed to go. We retreated, finally breaking back out into the corn fields at the bottom, then back over the hill to camp.

TAMAGAS (SUMIDERO) CAVE

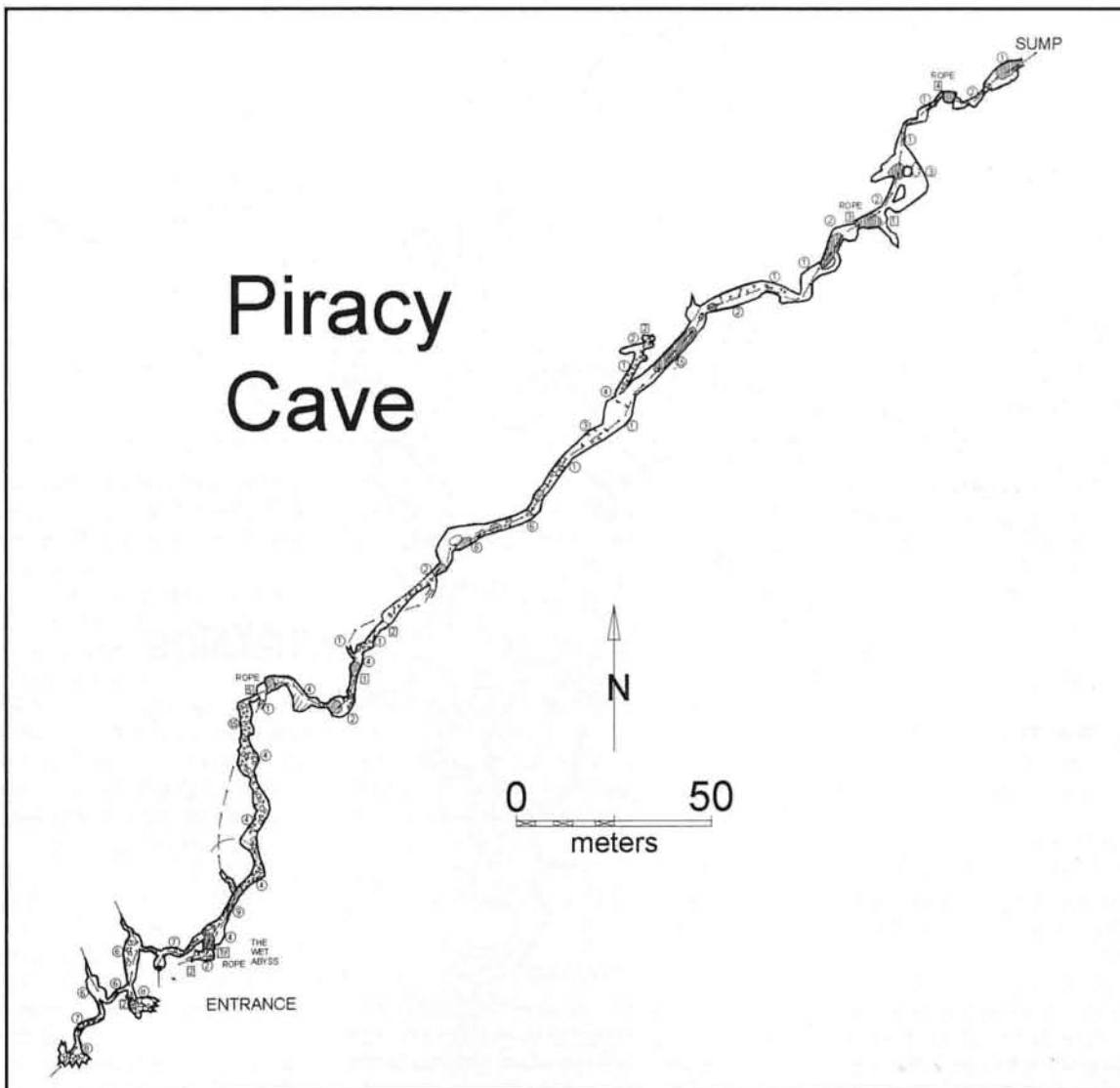
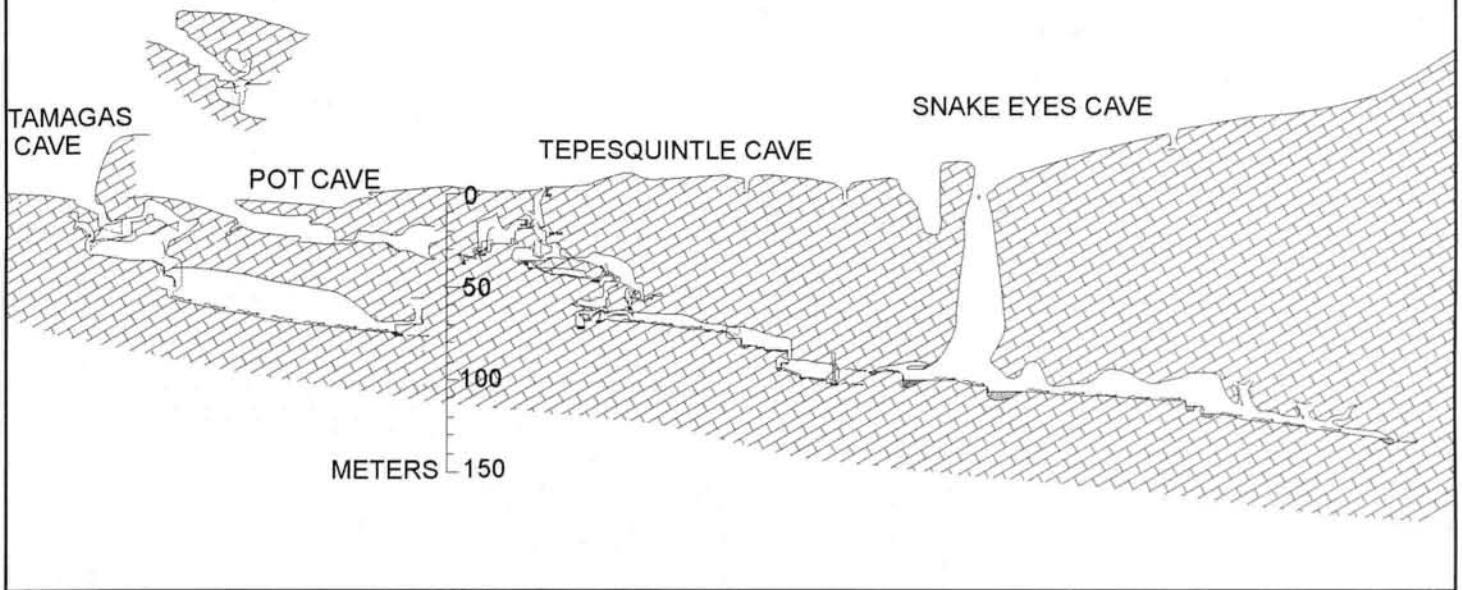
We knew already that the cave goes down a series of short climbdowns and a rope drop to a section of borehole, before the ceiling comes down and it pinches out. Jim and Carl had verified this on the 28th, but found there were several side leads including a couple plugged passages at the end. In moving rocks in one of these Carl managed to bash a finger, but it didn't keep him out of action for long.

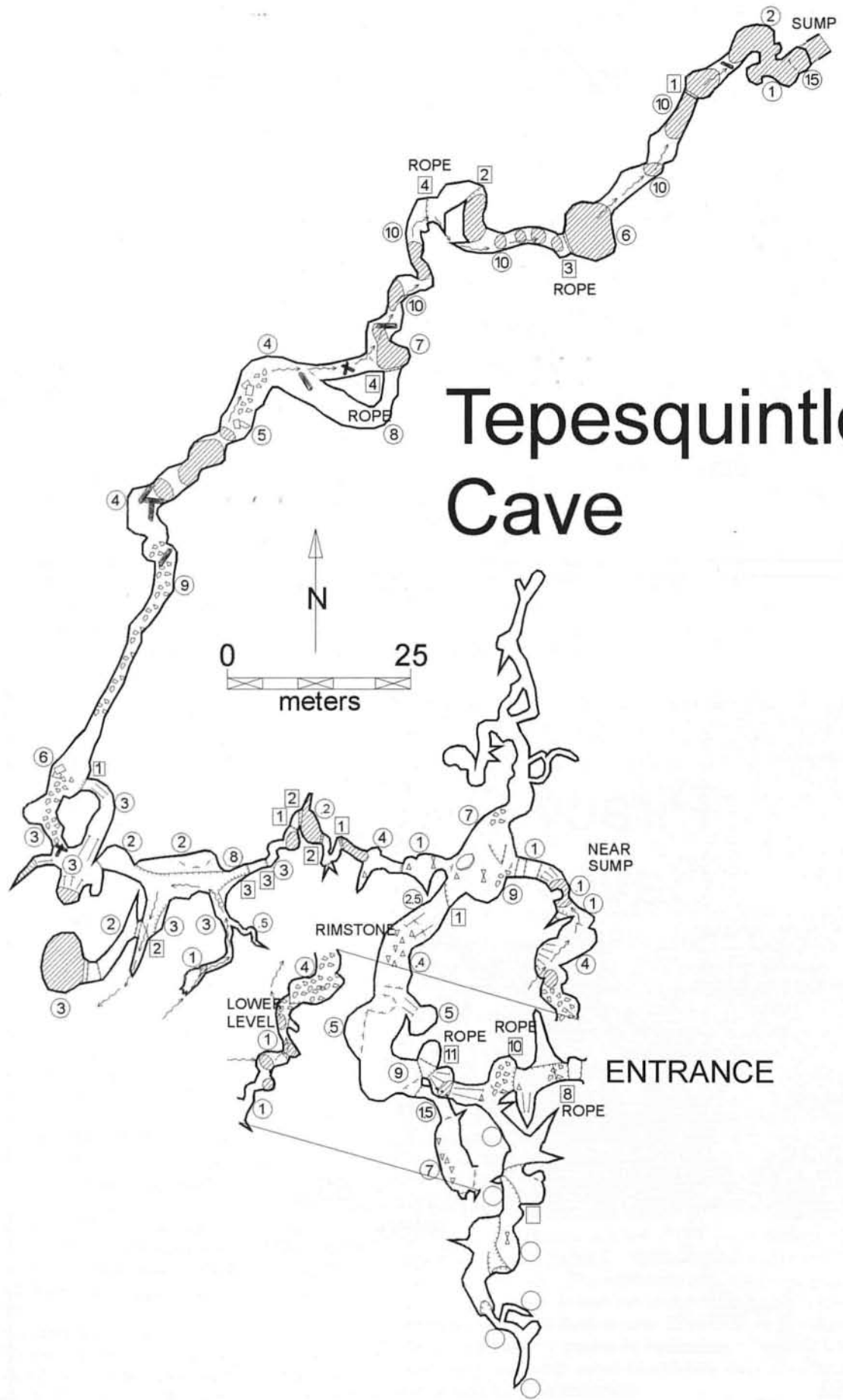


Dennis Worthington

Amblypygid in Pot Cave. One of the major orders of arachnids, its common name is: "tailless whip scorpion", though not a true scorpion. The whips are the highly elongated front legs which have taken on the role of antennae. (This specimen has one folded back toward the right side of the photo. The other appears to be broken.) The "whips" make them very suitable cave residents, and they are found throughout Central America. (Ed. Thanks to Djuna Ivereigh for ID-ing this critter).

NORTH-SOUTH PROFILE

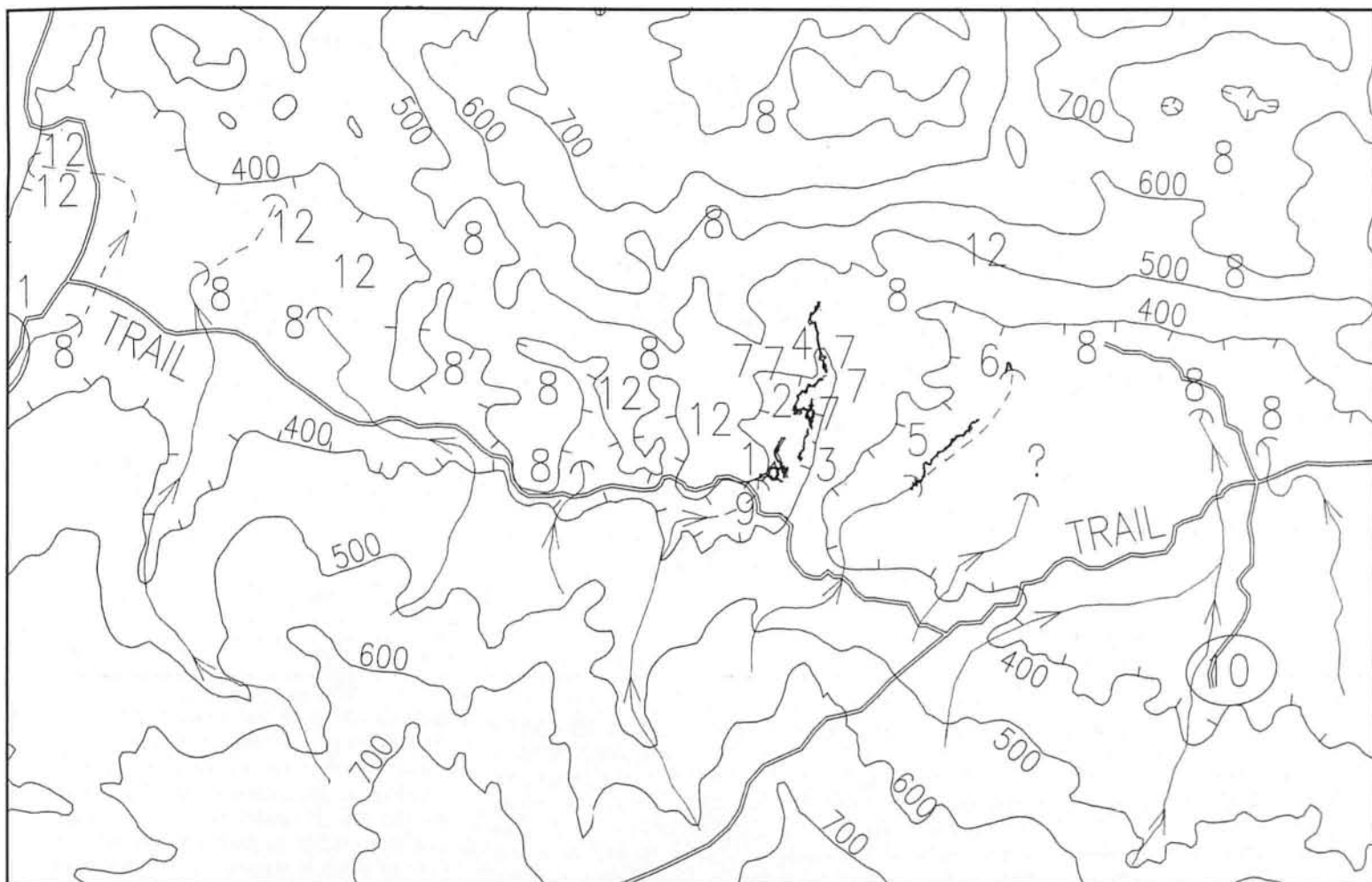
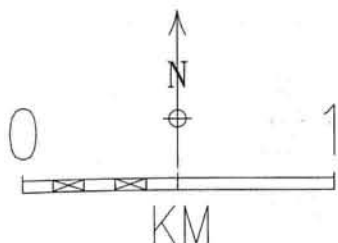




Tepesquintle Cave

Topo Overlay of Caves and other notable features

1. Tamagas Cave
2. Tepesquintle Cave
3. Pot Cave
4. Snake-eyes Cave
5. Piracy Cave
6. Willy/Paul Cave
7. unexplored pit
8. no entrances found
9. our camp site
10. pacayal
11. Santa Rosaria
12. small cave



On the 30th, he, Rich, Dennis and Jeffery went in and pushed leads but got only 200 meters more mapped. It all led up-, not downstream.

I should make a note here about philosophy of caving in third-world situations. Where there have been no other cavers, and you are thinking "glory" cave, one tends to focus on things that will lead to glory—borehole, blowing leads, downstream stuff, etc. One thus turns away from the digs and small stuff. But Rich and Jim were from the Mother Lode country of central California, where caves are hard to come by, and Dennis had started caving there. Carl was from Santa Cruz where caves are also small. It was thus difficult for them to turn away from **any** lead. In our situation of main passages sumping, this trait now became essential, and cavers often arrived back at camp looking totally trashed and covered with sleaze.

One more trip by Dennis and Rich, on the 31st, exhausted what remained. The only

exception was what would have to be a bolt climb in one of the plugged leads at the end; one could see the ceiling of a possible passage through a hole above. The total for the cave was 674 meters.

MILPA CAVE

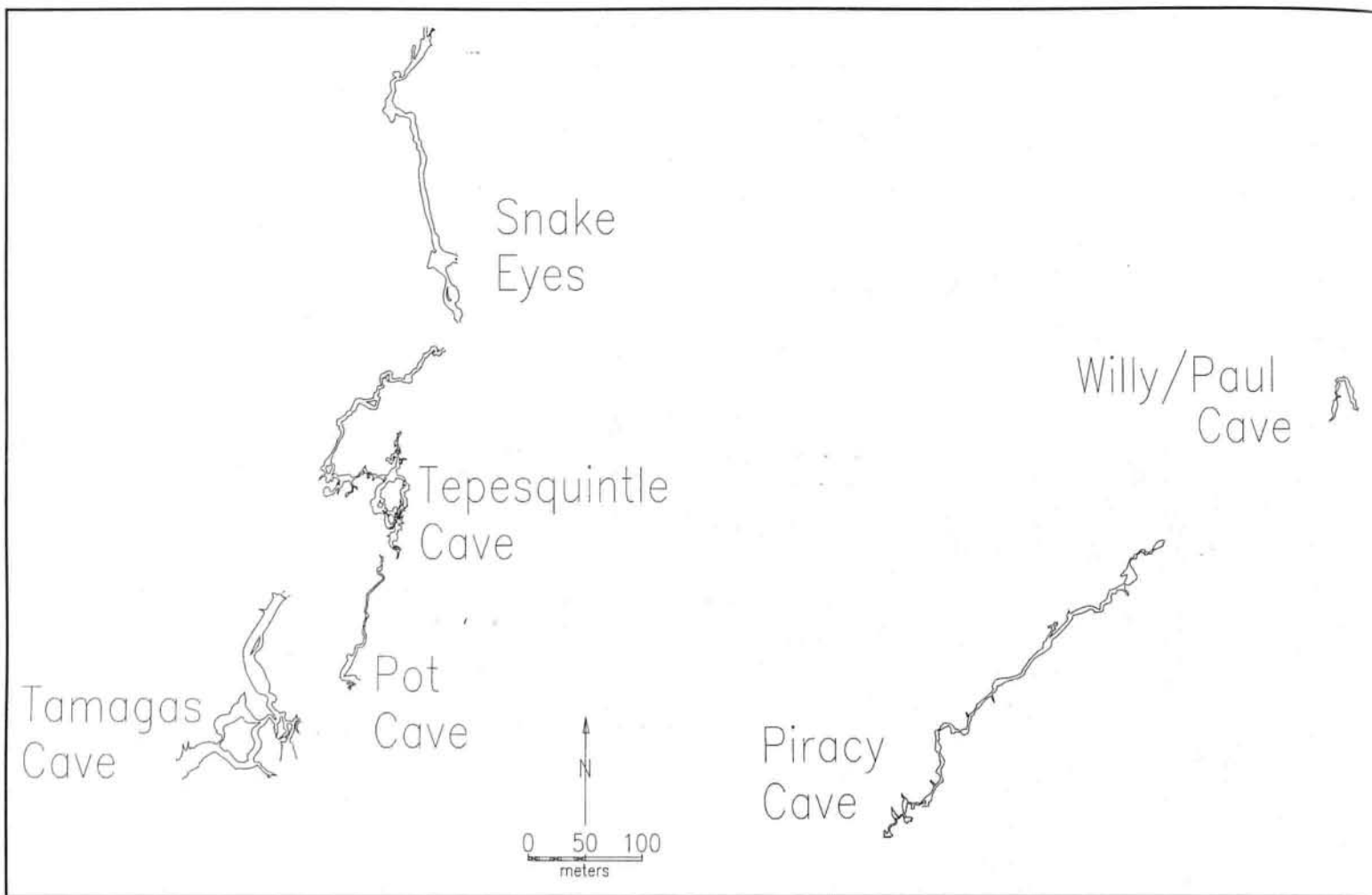
One of the locals who came to camp tried to help out by telling us of a cave entrance he knew of. You usually can't get much out of locals—in Guatemala folks seem to have no interest in caves. This entrance was in a shallow pit—you crawl in and it opens up and goes. On the 31st Jim, Jeffery and Carl went to push this—it took about 30 seconds. The very small chamber inside the entrance went nowhere.

POT CAVE

It looked like we were about finished, lead-side. We had talked to Santa Rosaria people about carrying packs out for us and they had agreed, but had limited manpower. So I hiked

over to Pacayal one day to let them know we could use more men. Thursday the 3rd of April was to be the day. Meanwhile the guys went to a little cave just past Tepesquintle Cave that was nothing more than a walk-in for about 70 meters. The attraction was two incense-burner pots near the end. Apparently there have been offerings to the Tzultacaj, the Kek'chi gods of the mountains who are given to dwell in caves. Interestingly, the two pots are of different generations—one is ceramic but the other is metal, though appearing rather aged.

Of course, when the Mother Lode cavers saw a dig at the end, they promptly attacked it and found it opened up after only a bit of work. They grew excited when they found two more incense pots on the other side. Apparently they had washed through the dig during some flood ages ago. A tall canyon led on, with fine rimstone dams on the floor. This soon narrowed to nothing at floor level, but continued higher up. A bolt climb would be



necessary. The cave mapped to 174 meters.

FINAL DELIBERATIONS

On the 25th Jim and Jeffery had done a surface traverse from Snake Eyes to Tamagas Cave, hitting the other entrances in between. A quick plot of this and the various cave plots showed what you can see from the included maps. Tamagas, Pot, Tepesquintle, and Snake-Eyes seem to be a system, one leading

to the other. One problem with this that we could see is that Tamagas appeared to have much more water flow than the others. Pot apparently is an upper level addition to Tepesquintle and had no flow. The flow in Tepesquintle starts at an upper level and is about the same as Snake-Eyes, but the terminal sump mapped to 10 m greater depth than the upper sump in Snake-Eyes. It may be that there is a series of parallel passages at play. I still feel that if we could get base level further along, the cave would be going. Maybe next year...

On the last Tamagas Cave trip Rich found that he had made a mistake to wear wetsuit booties in his boots without socks inside. The combination of irritation and moisture had been causing a mild rash but during that trip it suddenly flared and the pain became so unbearable that he had difficulty making it back to camp. Fortunately Dennis is a doctor, and quickly diagnosed a fungus infection, administering oral and topical medications. This had to get better fast—we were getting ready to leave. If Dennis had not been there I probably would have had to amputate...

On the appointed morning fate shined on us and between the two groups of men that showed up from Pacayal and Santa Rosaria, there were just enough, 17, to handle all the

baggage. The price had gone up a little, to 40 *Quetzales* each. I always contrive to make a donation to the local communities where we cave so when the carry was done, I gave each man an extra 10 Q with the stipulation that it was a donation to their schools from us through them. It is amazing to watch these guys carry loads: the trail is wet, muddy and in some places extremely steep. Even at the worst places they could move faster with a load than we were willing to, or could, carrying nothing. That night we were in a hotel in Rio Dulce.

ACKNOWLEDGMENTS

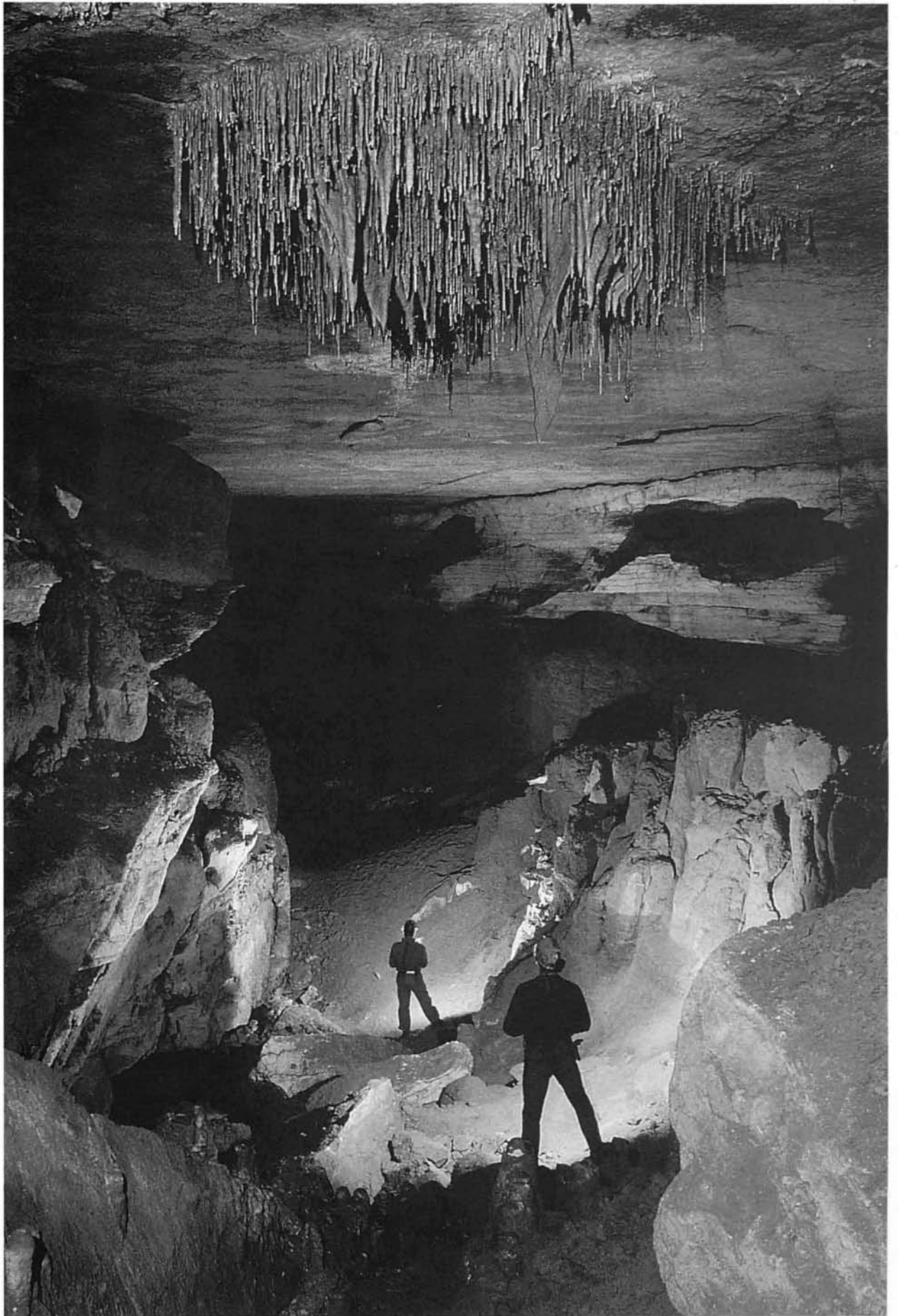
I want to thank all who helped make this trip possible. Dennis Worthington, for taking his new (air-conditioned!) truck; The National Speleological Society for a monetary grant; Mike Shawcross, for his hospitality and the keeping of my gear; Dogwood City Grotto, NSS, for the donation of a SKED; Pigeon Mountain Industries for a donation of their incomparable rope, and to all the folks of Monte Carmelo, San Juan Pacayal, and Santa Rosaria Secotoxa for their kindness and understanding.



Carl Reuter

Pot found beyond squeeze in Pot Cave

GALLERY



The Chandelier Borehole, by Ed McCarthy & Carl Samples, from a slide shown in the 1997 Photo Salon



SALON GALLERY '97

Honorable Mention (Green Ribbon) winners:

Left, top: *Many Ghosts Hide Here in the Darkness*, by Colin Gatland

Left, bottom: *Straws and Martha*, by John Van Swearingen IV

Right page, top: *Crangonyx hobbsi*, by Michael Garman

Right page, bottom: *Mellow Gold*, by Peter & Ann Bosted



GALLERY



Pockets in the Ceiling, by Ken Davis, is from a color slide shown in the 1997 Photo Salon

CONVENTION '98

Planning Ahead: August 3-7, 1998

Sewanee is not a river,
So don't pack for a raft trip...

Unless of course, you want to take advantage of some of the great white water rafting in the Tennessee area. High adventure awaits anyone who chooses alternative forms of above-ground fun during your visit to the 1998 NSS Convention. This is the time to plan ahead for some of those before and after adventures.

US Space & Rocket Center: Huntsville, AL. Adults \$9.00 kids \$6.00, IMAX movie is extra. Get there early for tickets. Open 9-6 daily CDT (205) 837-3400.

Chattanooga Aquarium: Adults \$10.25 kids \$5.50. 3D IMAX is extra. Largest freshwater aquarium in the world. Open 10-6 daily EDT (800) 262-0695.

Southern Belle Riverboat: Adults Prices range from \$8.00 to \$34.69. Paddle your way under the point of Lookout Mountain while enjoying a moonlight dinner to a Dixieland band. Dance until dark on a very special memory. (423) 266-7070 for details.

Incline Railway: Adults \$8.00 kids \$4.00. Ride the miracle mile up the face of Lookout Mountain. Cable car reaches a grade of over 72% on its way to the top. Open daily 10:00-5:20 EDT. (423) 821-4224.

Battles of Chattanooga: Adults \$5.00 kids \$3.00. An extraordinary depiction of the civil war confrontations in and around Chattanooga. See the critical clashes just prior to Sherman's fateful march to the sea burning everything in his path, including Atlanta. Open 9:30 to 6:00 EDT. (423) 821-2812.

Rock City Gardens: Adults \$9.75 kids \$5.50. An extraordinary place of rock and beauty. Open daily 8:00 to 8:00 EDT. (706) 820-2531.

Ruby Falls: Adults \$9.00 kids \$4.50 A classic cave that is worth a visit. Open daily 8:00-9:00 EDT (423) 821-2544.

Raccoon Mtn. Crystal Caverns: Adults \$6.50 kids \$3.00 A classic cave with the option of wild tours. Many other adventure activities at the adjoining campground. Open daily (423) 821-9403.

Tennessee Valley Railroad: Adults \$8.50 kids \$4.50. A great steam train ride and museum. Open daily 10:00-5:00 EDT (Sun. 11:30-5:00) (423) 894-8028.

Lookout Mtn. Flight Park: Hang gliding, tandem flights and lessons. A 20 minute flight is \$129.00. (706) 398-3541.

Fall Creek Falls Hiking, vistas, climbing, rappelling, golf, cabins, lodge, restaurant, boat

rental, fishing, camping, and swimming. A beautiful state park with the tallest waterfall east of the Mississippi. (615) 881-3297

Fall's Mill in Belvidere, TN features the tallest overshot operational grist mill in the country with a 32 foot wheel. Adults \$4.00 kids \$2.00 Open daily except Wed. 9:00-4:00CDT and 12:00-4:00 on Sun. (931) 469-7161.

Jack Daniels Distillery in Lynchburg, TN. Admission free, open daily 8:00-4:00. 1 hour tour. (615) 759-6180.

OCOEE RIVER RAFTING

The Ocoee is a great class 4 river with outfitters offering three-hour runs all day. Call ahead for reservations. Here are a few of the reputable outfitters:

Outdoor Adventure Rafting Self bailing rafts. (800) 627-7636.

Ocoee Inn Rafting, Inc. Self bailing rafts (423) 338-2064

Sunburst Adventures, (800) 868-7238.

Ocoee Outdoors, (800) 533-7767.

Nantahala Outdoor Center, (800) 232-7238

Cherokee Rafting, (800) 451-7238.

This is only a sampling of the many fine places to go and visit either on your way or after the convention. Most of these destinations can easily be reached and enjoyed in the same day from Convention Headquarters. In addition to the above, there are many organized trips planned for the week.

FIELD TRIPS

As you fill out your registration form, keep these in mind. All field trips will be on modern air-conditioned buses.

Geology: These trips will be all day trips. They will leave early Sunday and not return until after dark. Lunch and supper will be provided. The geology field trips are based around a model developed by the Geology department at The University of the South where the Convention is situated. Sewanee sits on top of the Cumberland Plateau. The trips will sample both the Valley and Ridge areas. Several stops are planned, including a short fossil collection site. There will be two levels of explanation. In one bus a university professor will be able to answer questions on a geologist's level. On the other bus, a well-known caver from the area will aim the dialogue at the level of cavers (four-letter words and short sentences, spoken slowly).



Space is limited. It is necessary to indicate which bus you want to be on.

Civil War History: Noted caver and civil war historian, Marion Smith will conduct this trip. This tour will leave early Sunday and get back late that night. Lunch and supper will be provided. The tour will feature several horizontal caves, so bring your gear. The tour will follow the movements of the Union army from the central Tennessee area toward the Chattanooga area. It will feature a special tour of the Chickamauga Battlefield and museum. There will also be a visit to Point Park where the battle above the clouds was fought. This trip is limited to one bus so register early.

Cumberland Caverns Tour: One of middle Tennessee's classic commercial caves will be visited on Tuesday afternoon and evening. The visit will include the famous historic entrance tour. It features the development of the cave from the first visits to the world class commercial cave it is today. The cave is owned and operated by long time NSS member and early pioneer Roy Davis. After the caving trip, supper will be provided in the Grand Ballroom—and we do mean Grand! You will have the opportunity to view the commercial tour. You will be back in time for bed. This popular tour is limited to 400 people, so pre-register now for a place on the buses.

NCRC (National Cave Rescue Commission) Looking for something to do the week before Convention? NCRC will teach its week-long cave rescue training only four miles away, the week before the Convention. If you have waited for a chance for NCRC and Convention to be held in the same state, here is your opportunity. Call Registrar Nancy Chrimes (540) 992-3665 or the National Chairman Butch Feldhaus (423-238-7009) for a registration form.

THE CLIMATE

Temperatures in this part of the country are mild year round. July and August range from 69° to 89°F. Since Sewanee is on top of the Cumberland Plateau, temperatures are about 10° cooler.

EARLY REGISTRATION

Please register **early**. There are discounts for early registration. Avis VanSwearingen (avis@mindspring.com) is the Convention Registrar, and can be reached at (205) 498-2420. She can send you a registration form if you need one, or copy one from next month's *NSS News*.

DO YOU DO INTERESTING THINGS IN CAVES?

Do you do interesting things in caves? If so, the rest of the caving world wants to hear about it. The "Call for Papers" is now sounding! Give a talk about your caving adventures, discoveries, equipment, techniques, research and/or projects. Contact the chairperson of the particular NSS Section in which you are interested in presenting and make arrangements to have your paper published and your talk heard. If you need more information about NSS Section chairpersons, contact Pat Kambesis, (pkambesis@coca-cola.com) at (770) 491-8587 or consult the Convention web page. An abstract of your paper (250 words or less discussing the highlights of your topic) is needed for publication in the Convention Program Guide. The **deadline for abstracts** is April 30, 1998—so act now!

CONVENTION CONTACTS

If you have any questions, please contact the appropriate person below. For general information, contact either the Registration Chair or the Chairman.

Chairman - Wm Shrewsbury
(423) 886-3296
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104017.2164@compuserve.com

Campground - Allen Padgett
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walkabout@bigfoot.com

Speleo-Olympics - David Smith
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Treasurer - Bill Stringfellow
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Vendors - Carol Jackson
(706) 863-7019
OleBat@aol.com

CONVENTION CHECKLIST

- Reservations for rooms (See Nov. '97 NSS NEWS)
- Registration form
- Transportation arranged
- Calendar/schedule adjusted
- Papers planned and in full process or preparation
- Auction items being considered
- Plan pre and post activities
- Get in shape for contests
- Costumes?



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The JSS: This Past Convention, and In the Future

The Junior Speleological Society was first conceived of as a way to pass the time at convention for a few bored eight-year-olds. It was more of a child's dream than a reality. But over the years, concerned adults have helped to turn this dream into an educationally-centered part of the NSS for both elementary-aged children and teens. Today's JSS has its own quarterly newsletter featuring trip reports and other cave-related activities written by cavers ages 6 - 17 years old, as well as its own committee in charge of planning and executing convention activities.

The 1997 Convention was a landmark year for the JSS. This was the first year that we were able to split our activities into two groups, one group for cavers between the ages of 6 and 12, and one for teenage cavers. This much-needed split was made possible only because a few wonderful people volunteered some of their convention time for chaperoning field trips. Because of these volunteers our children were able to attend six caving trips, a science class on cave formation, a sleepover, two swim parties (one impromptu), a science exploratory museum, and Six Flags (OK, so it wasn't caving, but it was fun!). Unfortunately we weren't able to build or participate in a speleolympics as in years past, but that mishap will not happen in the future. In fact, just as much as we have grown in the past, we plan on growing in the future. The 1998 Convention promises to have rock climbing, boating, more and longer cave trips, a teen as well as a kids' overnight, more hands-on science classes, and our own divisions in the Cartography Salon!

Just as there is no telling how far a child can grow in the right environment, there is no telling how far we can go. We are constantly looking for new ways to extend and enrich our program. The cartography salon wasn't even a dream until Don Coons thought of it. What more can happen to enrich our children's lives? That is up to all of us.

If you have any ideas or suggestions, would like to volunteer time, or would like to subscribe to our newsletter, please write to Lysa De Thomas at 148 Torry Pine Terrace, Santa Cruz, CA 95060 or e-mail her at dethomas@cruzio.com. If you are under the age of 18 and would like to contribute trip reports, games, puzzles, pictures, riddles, etc., either contact Lysa at the above address, or e-mail them directly to our newsletter editor Luke Peerman at Caverkid@AOL.com.



HUNTSVILLE HAPPENINGS

By Camille Duke

Santa was extremely good to the NSS Office this year! I wrote two "Dear Santa" notes in the *NSS News* and the response was immediate. All of a sudden, packages of goodies started arriving. **David Morehouse** sent a digital camera and a Canon Color Bubble Jet Printer which will be excellent for producing ads for the *NSS News* and our catalog. **Charlie "Weasel" Williams** responded by sending us an Iomega Zip Drive for use on our "event" laptop; I'd been living in fear of losing all the sales and membership data if the laptop crashed or got damaged in transport. **Kevin and Carlene Allred** sent us a CD-ROM Drive to help in the upgrade of our computers. **John Pearson** make our life so much easier by donating a flat bed color scanner; we could not have produced the *NSS Bookstore Catalog* so quickly without it! Then **Steve Davis** responded by sending us three

2.1 GB Hard Drives, memory chips, and a new 166 Mhz Pentium Computer with a 16 X CD ROM Drive. Jim Hall came in and set up the new computer and it works great. I am still in shock! My friends that work for other non-profit organizations are so jealous! The funny thing is they think I am so smart to figure out creative ways to get our members to donate equipment. When they started asking about my fund-raising secrets, I just laughed and told them all I did was—ask. This was foreign to them. I heard lots of stories of dinosaur equipment that their board refused to upgrade and members who never responded to pleas for help. Poor guys! I guess not every organization can have such great members.

Everyone in the office is recovering from all the holiday fun and looking forward to a great New Year! We are busy starting our

spring cleaning in preparation for the March BOG/Winter SERA meeting in Huntsville the weekend of March 21st. If you get a chance to attend, please do! We will be holding an open house party on Friday night at the office. We will have lots of pizza and hors d'oeuvres. There will be guided tours into Shelta cave. This will be a wonderful chance to hear the rich and romantic history of Shelta Cave as told by Bill Torode. Did you know that Shelta Cave was the first place in Huntsville to have electric lights?

Have a great year of caving! Remember to spread the word of cave conservation to everyone you meet. The more the general public realizes the importance of these wonderful places, the easier our job is to protect them and to get tougher cave vandalism/protection laws enacted!

CAVE DIVING

The accomplishments of Rob Palmer are memorialized in the third quarter 1997 *Deep Tech*. Initially a mountaineer, Palmer became attracted to caving. His interest in diving was a natural extension of his desire to explore underground. In Great Britain, he extended difficult systems with dives in **Kingsdale Master Cave**, **Ingleborough Cave**, **Darnbrook Pot**, **Black Shiver Pot**, **White Scar Cave**, and **Gaping Gill**. Forming a dive partnership with Martin Farr, they pushed deep into **Agen Allwedd**, **Wookey Hole**, and the Irish **Roaring Wells**.

In 1981 Palmer led a group to the Bahamas. A second trip in 1982 led to Palmer and Farr setting a penetration record of over two miles in **Conch Sound Blue Hole**. Later efforts took exploration in the Bahamas to depths of 330 feet and mapped 30 miles. As director of the Andros Project he helped pioneer the use of rebreathers and mixed gasses in cave diving. Other expeditions saw him diving in Australia, Palau, the Philippines, and the Himalayas.

Palmer remained an active participant in the British Cave Diving Group and in several conservation organizations and projects. He held a number of instructor certifications from several organizations. He was the founder of the Bahamas Blue Holes Foundation and author of five books, including *Deep Into Blue Holes* and *Introduction to Technical Diving*.

Richard Pyle is a marine ecologist who is fascinated by the ocean life living at the margins of photosynthesis. At nineteen, his interest caused him to get bent while diving in Palau. His medevac flight on a Coast Guard C-130 allowed treatment to reverse his quadriplegic paralysis. More cautious, but still enthusiastic about deep marine life, he developed his own mixed gas SCUBA system. It worked well, but the open circuit design was too limiting. To achieve longer bottom times he gravitated to rebreathers. He borrowed a

Cis-Lunar rig, developed by Bill Stone, to satisfy his cave diving requirements. Using this equipment he discovered a cave off the Hawaiian Islands which he pushed to a depth of 500 feet—safely. (*Natural History*, November 1996.)

Missouri springs are highlighted in the Spring 1997 *Missouri Resources*. Divers have pushed **Meramec Spring** to a depth of 200 feet and a quarter mile of penetration against the 93 million gallon daily flow. **Bennett Spring** has been dived to a constriction at a depth of 80 feet and averages 100 million gallons of water daily. **Alley Spring** has been pushed to a 100 foot depth and produces 81 million gallons daily. A flood in 1935 increased flow here to 685 million gallons per day.

The October 1997 *Skin Diver* features an article on the narrow canyons and caves on the south side of Grand Cayman. **Devil's Grotto** is a shore cavern dive ranging from eight to 45 feet. The article claims that a dive light is seldom necessary.

South of Riyadh, Saudi Arabia, farming is supported by mining water from tectonic caves. The caves filled when the climate was wetter. At Ain Heet, a cave entrance leads down a 45-degree talus slope to crystal-clear water. The cave walls are covered by fine sediments which can rapidly reduce visibility to zero. (*SCUBA Times*, December 1996.)

WILD CAVING

The sea caves of the Shetland Islands are apparently best seen by kayak. One cave, **Christie's Hole**, in Papa Stour is a central chamber with side leads looping back again. The central chamber is lit by a skylight, which allows one shaft of sunlight to turn the sea water an iridescent green and illuminate the colorful cobble and gravel floor. Another small island is completely pierced by a cave running the length of the island. This sea cave is transected by another through passage. The tide runs here like a river, and tranquil water suddenly rushes to get outside. (*Sea Kayaker*, December 1996.)

EXPLORATION

The Explorers Club (EC) presented a Flag Award to the "Icelandic Cave Dive Expedition." The group planned mixed gas diving to extend exploration into **Situr Hallir** and "advanced propulsion" for dives in to **Karaugua Cave**. NSS fellows Bill Varnedoe and John French were awarded Explorers Club Flag number 176 for their efforts in a cave in Alabama. NSS members Jill Yager and Bill Klimack were awarded EC Flags for projects relating to caves. Yager's focus is on marine caves off northeast Cuba and teaching safe cave diving to Cuban biologists. Her work is in conjunction with the biokarst group of the

Sociedad de Espeleologica de Cuba. Klimack's work is the study of ice caves at the summit of Mount Rainier, Washington. (*The Explorers Newsletter*, January-March 1997, April-June 1997, and July-September 1997.)

COMMERCIAL CAVES

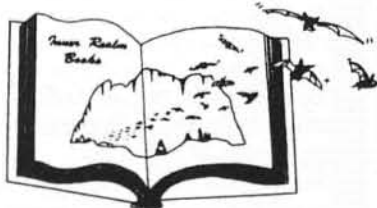
The creatures living in the lava tubes of Hawaii Volcanoes National Park have adapted quickly. Despite having had less than 100,000 years, blind, colorless troglomorphic species have evolved. The world's longest known lava tube is here on the flanks of Kilauea Volcano. The initial 500 feet of **Thurston Lava Tube** have been developed and have electric lighting. **Kaumana Cave** in a county park near Hilo provides an interesting undeveloped trip. The cave is in a flow from the 1880-1881 eruption of Mauna Loa. With a vertical drop of about 3500 meters the cave could have been the world's deepest had the tube stayed intact. During rainstorms water can be heard flowing behind the walls to emerge down passage as if a pipe had burst. (*Hawaii Magazine*, June 1996.)

The Bird of Paradise formation was stolen from **Oregon Caves National Monument**. The crime occurred during the night of July 22-23, 1997. The stalagmite was on a ledge high above the trail according to monument superintendent who said the effort was extremely dangerous. (*Grants Pass [Oregon] Daily Courier*, July 24, 1997.)

The commercial caves of Virginia is a major feature of the "Travel" section of the February 2, 1997 *Richmond Times-Dispatch*. The article states that **Luray Caverns**, with almost 500,000 visitors each year, is the most heavily visited cave in the state and the third in the nation. **Grand Caverns** "discovered in 1804, was the nation's first cave open to the public." Several other commercial operations are mentioned: **Shenandoah Caverns**, **Skyline Caverns**, **Endless Caverns**, and **Dixie Caverns**. The article mentions that cave formations are now protected by state law, and that touching formations causes damage. Cave management has improved with experience. Luray removed a bank of lights which had permitted photography without a flash because the intense lights dried a side of an active stalagmite and caused deterioration. Luray, of course, is home to the Stalacpipe Organ, which is listed in the *Guinness Book of World Records* as the largest natural musical instrument.

The opening of **Kartchner Caverns**, Arizona, is expected to be further delayed by difficulties in digging the 1,100-foot tunnel for the visitor's entrance. Miners encountered very soft rock which required unexpectedly

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extensive shoring. Work on the tourist trails inside can not begin until the entrance tunnel is open. Progress is slow because the project manager is careful to do the development correctly to protect the cave. (*The Arizona Republic*, January 25, 1997.)

The entranceway of the National Mining Hall of Fame and Museum is an exhibit called "Prospector's Cave." It contains a wall of quartz crystals, and pyrite specimens as well as a waterfall and stream. "A cave having quartz and pyrite minerals often indicated the presence of gold and other metals" according to the curator. The quartz was donated by the Denver Museum of Natural History. (*Mining Engineering*, July 1997.)

SPELEOLOGY

The Western Kentucky University partially supports the Center for Cave and Karst Studies. The Center is run by Professors Nick Crawford and Chris Groves. Their interest in geology, and karst in particular, began with a youthful interest in caving. Crawford now has little time for caving with most research devoted to the karst issues of radon hazard, groundwater migration of pollutants, and flood control. Bowling Green, where the University is located, is one of the largest urban areas on karst (the claim of largest is made by both Bowling Green and nearby Clarksville, Tennessee) so these are important issues. Groves manages more time underground with research interests in speleogenesis. His work research is often done at nearby **Mammoth Cave**. The center also teaches a series of classes in the summer at Mammoth. (*The Chronicle of Higher Education*, February 14, 1997.)

ANTHROPOLOGY/ARCHAEOLOGY

Remains of what was a city seems to have been discovered in the East National Park, Dominican Republic. Ceremonial plazas and a substantial number of dwellings surround a *cenote* at the site now named La Aleta. The Taino Indian residents may have been those native Americans who welcomed Christopher Columbus. Researchers from Indiana University have searched the 115-foot deep *cenote* using SCUBA and recovered wooden axes, baskets, and pottery. La Aleta may be the city destroyed by the Spanish in 1503, when the conflict between the Spanish and the Indians began. Supposedly the conflict began when a Taino chief was killed by a Spanish attack dog which had broken free after being taunted by its Spanish handler. The Taino were extirpated by 1515. (*Anchorage Daily News*, March 30, 1997.)

The Indians removed from the Bahamas by the Spanish would have been completely unknown except for the field research of W. K. Brooks. A Johns Hopkins University zoologist, he visited the Bahamas in the 1880s. After becoming interested in the

original inhabitants, he found that settlers had discovered several skeletons in caves. He rescued these from private collections for scientific description. (*Natural History*, November 1996.)

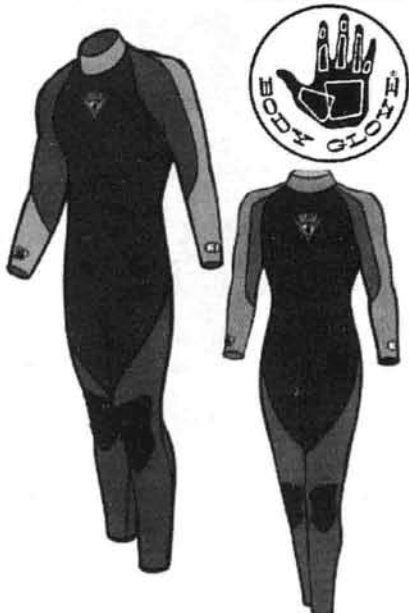
R. Dale Guthrie, a paleontologist at the University of Alaska, Fairbanks, is producing a book about cave art. Tentatively titled *The Nature of Paleolithic Art: Breaking the Code*, his thesis runs counter to other interpretations. He has often worked as a field biologist to gain insight into clues from fossils of prehistoric conditions and behavior. Using his field experience as a scientist and hunter he concludes that cave art is accurate representation of natural history, not mystical or symbolic abstractions. He theorizes that hand outlines in cave art represent signatures of male artists. He is photocopying the hands of Fairbanks residents to develop a database of hand measurements. (*Alaska*, October 1997.)

New data on human occupation of Australia has had a huge impact of time estimates. Evidence from **Jinmium Rock Shelter** in northwestern Australia shows that humans were there as early as 176,000 years ago. The stone artifacts and food remains were dated using thermoluminescence techniques on soil layers. The early date has led some scientists to suggest that the inhabitants were a "transitional or archaic version of *Homo sapiens*." The rockshelter has art dated to up to 75,000 years before present. The art consists of rows or circular engravings. This is the oldest art ever discovered, although some now argue the definition of art. Proponents of the theory of *H. Sapiens* arising simultaneously in various parts of the world embraced the new dates as supporting their position. (*Science News*, September 28, 1996.)

A cave near Qain, northeastern Iran, has been discovered to contain human fossils. Apparent conjecture places a human occupation there at as early as 500,000 years before present. The cave also held pottery shards. (Scola-One Television, January 8, 1997.)

PALEONTOLOGY

Missouri caves have sheltered the remains of former megafaunal residents. A nasty, wet entrance to a Missouri Ozark cave for years guarded prints left by the extinct American lion. The tracks are believed to be at least 10,000 years old. Recently an excavation in another Missouri cave opened a side passage with prints of either a Pleistocene jaguar or saber-toothed cat. Finding fossils in Missouri caves is not new. **Cherokee Cave** is located under St. Louis and was used as a brewery. In 1945 efforts to turn it into a show cave revealed fossils. Dr. Russel Graham of the Denver Museum of Natural History estimates that 20 percent of significant fossil sites in the United States are caves. (*Missouri Resources*,



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Medium Large	5'10"-6'1"	170-185
Large Short	5'8"-5'11"	180-195
Large	5'11"-6'3"	185-200
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XXLarge (13)	5'7"-5'10"	155+

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SPELEAN HISTORY

When Americans fought Japanese soldiers on Okinawa in World War II caves became Japanese bunkers for their final defensive line. A method known as "blowtorch and cork screw" was developed. Armor and infantry teams suppressed cave entrances. Holes were drilled into caves and gasoline and napalm poured in and ignited. Okinawa was the only battle which saw the death of the senior commanders on both sides, General Buckner and General Ushijima, and also produced the

highest American casualties in the war. (Army, November 1996.)

BIOSPELEOLOGY

A 1991 Scripps Institution of Oceanography expedition to Philippines removed two pounds of organic material from a marine cavern at a depth of 100 feet. The goal of the operation was to extend the knowledge of pharmacognosy with a search for new medicines in the sea. Included in the sample was a single colony of jelly-like invertebrates, *Diazona chinesis*, which produced a chemical that was found to be a highly effective killer of cancerous human colon cells. With the promise of a new anticancer drug, another expedition returned to the cavern and could find no other members of the species. Additional efforts in the area spent two months over a four-year period, but did not find any invertebrates which produced the chemical. A separate effort is trying to synthesize the compound, diazonomide, but its structure is exceptionally dense and stiff and so far eludes synthesis. (Dayton Daily News, February 10, 1997 and Dentistry Today, March 1997.)

One of the attractions of caves in New Zealand are the glowworms (*Arachnocampa luminosa*). **Glowworm Cave**, part of **Waitomo Caves**, is a commercial operation where visitors are boated through a large room. Glowworms on the ceiling make the cave roof appear instead to be a view of the nocturnal heavens. The "stars" disappear when there is a loud noise. The worms are larval insects. The light-emitting organ is not controlled by their nervous system. Instead they turn it off by restricting the amount of air reaching the organ. The lights attract flying insects which become entangled in strands of silk produced by the glowworms. The glowworms then pull up their meal. In the adult phase the glowworms have no mouth parts and rush to reproduce before their death. (Awake!, April 8, 1997.)

BATS

Madagascar's Ankarana Reserve is a nature preserve known for its lemur population. Caves in the limestone cliffs there

shelter bats. Some caves are heavily visited by tourists so a bat count was performed to serve as a baseline for monitoring of visitor impact. Thirteen of the island's 24 bat species roost in the reserve. Cave tour guides were informed about the benefits of bats and asked to cease intentionally disturbing bat colonies. (Bats, Spring 1997.)

The September/October 1997 *National Parks* describes the plight of Indiana bats. The Indiana bat population has declined from 550,000 in 1983 to fewer than 250,000 today despite being listed as federally endangered since 1967. The bats concentrate to as many as 500 per square foot for hibernation. Over 85 percent of the animals hibernate in only nine caves and mines, with over 50 percent in two of these sites. The bats are vulnerable during hibernation. Human intrusion awakens bats which exhaust their stored energy reserves and they starve before spring. Female Indiana bats produce only one pup per year, making populations unable to rapidly recover losses. National Parks in the Indiana bat's range are Cumberland Gap National Historical Park, Kentucky; Mammoth Cave National Park, Kentucky; and Ozark National Scenic Riverways, Missouri. Scientists from the National Biological Service are trying to gate hibernaculum and study the causes of decline in summer habitat.

The Oklahoma Department of Wildlife Conservation, if on schedule, began public excursions to view the bat flight from **Selman Bat Cave**. The cave is home to over two million Mexican free-tailed bats. The interpretive trips begin at **Alabaster Caverns** State Park where visitors view a presentation about the bats. The group then travels to an observation point by bus. The land surrounding the cave entrance was sold to the state so the cave and bats could be conserved. This is the first effort by the state for a non-game species. Volunteers with the project include NSS member Bruce Baker. (The Sunday Oklahoman, June 1, 1997.)

One of the longest-running bat banding efforts was conducted by Professor Harold Hitchcock at Middlebury College, Vermont. He actively banded during much of his teaching career which spanned from 1943

through 1968. In 1995 a live little brown bat was found with a Hitchcock band dated 1961. (Middlebury Magazine, undated.)

The Center for Disease Control and Prevention reports that the two rabies-caused human deaths in 1997 were from viruses transmitted from bats. A Washington state resident contracted rabies carried by big brown bats. A Montana man died from rabies from the silver-haired bat reservoir. Neither man reported direct contact with bats, although one had a bat roosting in his home. Until autopsies were performed, it had been thought that the victims were suffering from Creutzfeldt-Jakob disease, which perhaps is the human version of mad cow disease. (Marietta [Georgia] Daily Journal, August 22, 1997.)

A San Joaquin County, California, building in Stockton was temporarily vacated because of odor blamed on bats roosting in the attic. The county planned to allow the bats to leave through a "one-way tube in a wall." (The Modesto Bee, undated.)

Three articles which appeared in *The Pittsburgh Post-Gazette* during consecutive months of 1996 linked bats with rabies.

CONSERVATION

The Missouri Natural Areas Committee formed in 1977 to protect the best remaining examples of the state's diverse natural communities. The Committee works with a number of management agencies. **Jam-Up-Cave Natural Tunnel** was determined by the Committee to be a significant geologic feature and is in the National Park Service's Ozark National Scenic Riverways. Ha Ha Tonka State Park includes the Ha Ha Tonka Karst Natural Area. (Missouri Resources, Spring 1997.)

The Nature Conservancy's (TNC) Mo'omomi Preserve, Molokai, Hawaii, protects 22 native plant species, four of which are imperiled. Endangered green sea turtles nest on the beach. A photograph of the preserve, taken from the mouth of a cave above the beach, appears in the July/August 1997 *Nature Conservancy*.

The Nature Conservancy has entered into a cooperative effort with the Guatemalan National Protected Areas Council to establish effective protection for Sierra de Lacandon National Park. The 500,000 acre park contains some of the "most spectacular" lowland rain forest in Central America and includes "raging rivers disappearing down into ... caves." The protection effort will also involve the adjacent 4 million-acre Maya Biosphere Reserve. This \$4.5 million project will be funded by \$1 million raised by TNC and the balance provided by the US Agency for International Development. The main threats are illegal timbering and slash-and-burn-farming. (Nature Conservancy, May/June 1997.)

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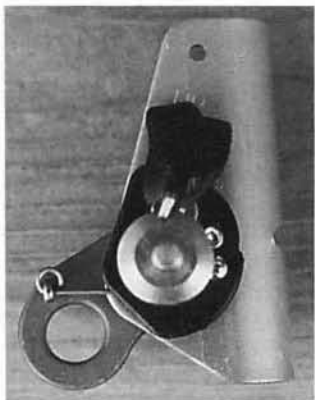
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Cave Dweller" is the headline on the Health & Science column of the March 6, 1997 *Southern Illinoisian*. The US Fish and Wildlife Service will seek protected status for the shrimp-like amphipod *Gammarus acherondytes*. The article explains that the Service will seek to protect the species despite no known economic value, and that the public probably won't be very interested in an amphipod. The Endangered Species Act was designed with philosophy that all species interconnect in unknown ways. The amphipod is known only from a few populations in Monroe County Illinois. Water quality in these caves has deteriorated because of drainage from septic systems. One sample sent to a lab prompted the lab personnel to advise the field workers to wear gloves and a mask when collecting samples. (Also *St. Louis Post-Dispatch*, March 6, 1997.)

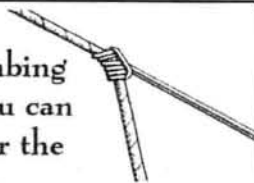
MISCELLANEOUS

The fashion shoot location for the September 22, 1996 *New York Times* was Luray Caverns, Virginia ... Software designed to keep children from downloading pornographic images apparently also prevents them from accessing pictures of speleothems. Orange-hued shades of some stalactites were too skin-like so the program interpreted them as human arms or legs. (*Chronicle of Higher Education*, November 29, 1996.) ... An article on extreme sports in the June 30, 1997 *U. S. News & World Report* is significant for its lack of mention of caving ... Kansas is not a state which comes to mind when thinking of caves, but the Red Hills region in the south central part of the state breaks with the rest of the state's geology. Barber and Comanche Counties alone have 400 caves. (*Kansas Wildlife & Parks*, March/April 1996.)

This month's contributors: Bruce Baker, David Belski, Larry Blair, John Cawkins, Jerry Cindric, Martha Clark, Ernie Coffman, Mike Cullinan, Deep Tech, Dave Deshayes, Kim Fleischmann, Cato and Susan Holler, Dave Hughes, Missouri Resources, George Moore, Al Mueller, Tomm Reinbold, Jay Rockwell, Jon Smith, Red Watson, James Wolff.

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NEWS AND NOTES

SCCI Update

#5, October 8, 1997

Properties under management of the Southeastern Cave Conservancy, Inc. have an access policy and management plan adopted by the board. Each plan is different and addresses issues specific to the use of each individual property. Access policy and management plans may be obtained by contacting Kenneth Huffines, Office of the Secretary, 356 O'brian Drive, Stone Mtn., GA 30088; phone: (770) 469-3197. khuffines@mindspring.com

NEW ACQUISITIONS

1. **Fox Mountain Cave Preserve**, Dade County, GA: The purchase of the 332-acre Fox Mountain Cave Preserve was completed in September 1997. This fantastic opportunity has doubled our holdings and added seven new caves! The property contains some of Georgia's longest and deepest caves, including **Cemetery Pit**, **Rustys Cave**, and **Hurricane Cave**, as well as other smaller caves. The 332-acre preserve is the SCCI's largest cave preserve, bringing the Conservancy's holdings under management to 583 acres and approximately 20 caves. This project has been six years in the making!

Cemetery Pit has a significant population of a non-endangered species of bat that frequents the cave during the winter months. Rusty's Cave is one of Georgia's deepest and contains an impressive number of speleothems. Hurricane Cave is a main drainage conduit for a large portion of the watershed on Fox Mountain and is still being explored and surveyed. Several other small caves are known. Some portions of this preserve have not been thoroughly searched for caves and karst features. Plans are to conduct various inventories during 1998.

2. **Logsdon Cave**, KY: This multi drop cave is now leased from the Nashville Grotto by the SCCI. The Grotto will contribute funds to help defray insurance costs and will help manage the resource.

NEW PROJECTS

1. **Lobelia Saltpeter Cave**, Pocahontas County, WV: Mr. Marshall Fausold is donating 30 acres and a 4/3 mile long saltpeter cave to the SCCI. The cave contains a small, though impressive, amount of saltpeter workings artifacts. The property was formally owned by Peter M. Hauer, deceased. The National Speleological Society gives an annual award in Peter's memory to a person or group that is engaged in outstanding spelean history research.

2. **Swirl Canyon**: Tennessee Board member Geary Schindel is looking into the

possibility of lease while research of the cave and land is being conducted. More Later.

3. **Lowery Cave**, Georgia: Recent studies of the gray bat population at Fricks cave have shown that part or all of the bats migrate between Lowery cave and Fricks cave. No more detail is available at this time. The cave is owned by a timber company with its nearest plant in Coosa Georgia and headquarters in Texas. The cave is in no immediate danger. The USFWS is working closely with the company and has a watchful eye on the bat population. Intentions are to work closely with the USFWS to insure the protection of the population. To what extent this cooperation will be is not yet known. More later.

CONTINUING PROJECTS

1. **Trussel Cave**, Grundy County TN: This cave is located on a 291 acre tract listed with Smokehouse Realty in Monteagle Tennessee. Most of the tract appears to be the east and west flanks of Trussel Cove as well as the bottomland at the mouth of the cove. Field investigations have been conducted and a proposal to section off several acres has been presented to the listing agent. No word yet.

2. **Limrock Blowing Cave**, Jackson County, AL: Limrock Blowing, a significant river cave, has been on the market all summer. Bill putnam has sent a written proposal to the owners that includes donating the property to the SCCI, a non-profit corporation, for a tax savings to the family estate. The owners are receptive and are pursuing an appraisal of the property.

3. **Halls Pit**, AL: The owner of this classic limestone shaft is considering a lease. Negotiations continue.

4. **South Pittsburg Pit**, Marion County TN: This classic 160 ft. pit is now open. Please contact the SCCI for parking details. Denis Holton has been named property manager.

5. **Anderson Cave**, Birmingham AL: Waiting for utilities board approval of SCC proposal. This unique property contains approximately six caves in a small limestone ridge. One cave, Anderson, is an endangered Gray Bat cave.

6. **Woodark Sink**, Clarksville, TN: This cave is the back entrance to Dunbar Cave in Dunbar Cave State Park. The 70- foot-deep sink has been classified as an illegal dump site by the state of Tennessee. The SCC is researching the possibility of taking about 1.5 to 2.0 acres as a gift from the owner pending cooperation with other agencies in clearing the site of debris. The state has indicated that if a cave conservation organization has control of this site, they will cooperate fully and grant reasonable time to complete the project. No further progress at this time.

7. **Junkyard Cave**, Nashville, TN: Owners are interested in a lease. Board member Geary Schindel is investigating. This significant cave system will require an initial cleanup and access control. The cave is located in a metropolitan area and is very close to a new state highway. Controlling vandalism of the cave has been, and will continue to be, the focus of management for this cave.

8. **Horse Skull Cave**, and **Jacks Hole**, Jackson County AL: This historically significant cave and 40 acres are under a verbal contract to be sold to the SCCI. The deal should be completed by the end of November 1997. Jacks Hole is a shallow pit leading to cave passage above the entrance to Horse Skull and does not connect.

9. **Airplane Cave**, Hamilton County, TN: Lease terms recently re-negotiated. This three-mile+ system in the Chattanooga city limits is a superb conservation project for the SCCI. A new lease is being drafted.

10. **Coon Creek Cave**, Jackson County, AL: A 658-acre tract is for sale containing this saltpeter cave and probably others. Investigations into the details of the sale are under way. No information yet.

PROJECTS ON HOLD

1. **Fissure/Dragons Lair Cave**, Marion County, FL: Project on the back burner. Owner has changed his mind for now.

2. **Anvil Cave**, AL: On hold. Owner has been too busy to continue talks.

3. **Tiftonia Pit**, Hamilton County, TN: Owner has been ill. Negotiations on temporary hold.

NEWS

Mary Foster has been named editor of the SCCI newsletter. Please send contributions, information and suggestions to Mary Foster, 2821 Burnham Court, Doraville, Georgia 30360. (770) 396-7483. mfoster@responsemedia.com

The SCCI relies on gifts and Sustaining Contributions to pay the mortgages for these properties. The Sustaining Contribution program allows you to make a tax-deductible monthly donation to the SCCI using your Visa, MasterCard, or American Express card. You can join by contacting Scott Fee at 205-854-PITS or by e-mail at sustaining@scci.org. The minimum monthly contribution is \$5, and covers your annual membership dues as a Sustaining Member. Monthly donations of \$10 or more entitles you to a special edition SCCI logo T-shirt, and donors at the \$25 and up level receive the new embroidered SCCI polo shirt as well as other premiums.

You may also make direct donations by cash or check. Donations may be designated

for any ongoing acquisitions or project of the SCCI. Send donations to SCCI Treasurer Buddy Lane, 40 Hidden Brook Ln., Signal Mtn TN 37377-2063. All donations are tax-deductible in accordance with IRS rules for charitable donations.

Thank you for your Support!

For more information, see our web site at www.scci.org or e-mail info@scci.org

ENGLISH VERSION OF SPELEO?

Speleo, a beautifully printed, 32-page, all-color French caving magazine, is seeking subscribers for a possible english-language version. In addition to the home scene, it offers coverage of the many international caving expeditions made by French cavers, and is issued four times a year. They have a web site at www.speleo.com, or e-mail editor Luc-Henri Fage: lhFage.Speleo@wanadoo.fr to express interest.

NATIONAL CAVE RESCUE COMMISSION EDUCATION BOARD OPENINGS

During the 1998 Winter Business meeting of the National Cave Rescue Commission (NCRC), Board of Regional Coordinators appointments will be made to the NCRC Education Board for the positions of Curriculum Coordinator and Database Manager. This meeting will take place at the DuBose Conference Center, Monteagle, TN, on January 31, 1998. Persons appointed to these positions will serve two-year terms and be part of a team which develops, pilot-tests and implements curriculum relating to cave rescue management, operations and techniques. Anyone interested in more information about these positions, or to place yourself in consideration, please contact Butch Feldhaus, National Coordinator National Cave Rescue Commission, 5416 Hunter Village Drive Ooltewah, TN 37363-7004 bfeldhaus@compuserve.com

BLACK HILLS CAVE RESTORATION CAMP

Once again, Wind and Jewel Cave are hosting the fifth annual Restoration Camp (formerly known as Lint Camp) in the Black Hills of South Dakota. You are invited to be one of 20 volunteers who will be assisting with this conservation project.

The goal of the project is to restore and maintain the caves' natural appearance by removing lint, trail debris, and cleaning formations. We are soliciting help from anyone interested in resource protection and restoration.

The camp will be held May 4-8, Monday through Friday. Two days will be spent at each cave, with Wednesday reserved for off-trail caving or sightseeing. No registration fees, housing provided. For more details please contact Jim Nepstad at (605) 745-1158 or Jim_Nepstad@nps.gov. Application deadline is March 13, 1998. See you there!

READING

SPRINGS OF MIDDLE TENNESSEE

by Larry E. Matthews, *Tennessee Cave Survey Bulletin 2, Nashville, Tennessee Cave Survey, iv + 120 pages, September 1997. Available from Speleobooks, the N.S.S. Bookstore, and other cave vendors.*

Prolific cave author Larry E. Matthews has just published the first installment of his ambitious project to compile information on the springs of Tennessee. This first volume covers the 41-county middle Tennessee area, and lists known springs by county and topographic quadrangle. Admittedly incomplete, it is still an impressive collection of information on almost 800 springs, and it will serve as a useful point for further research. Matthews uses information from the geologic literature, Tennessee's Water Well Program, topographic maps, and his own field observations. He includes information on the field location, elevation, and geologic unit for each spring. He also includes "spring" place names in the region, even if the feature itself remains undescribed in the literature, as a clue for other field workers. This is a valuable work, especially for karst researchers in the study area, but also for project cavers, environmental consultants, and regional geographers. Matthews is to be commended for this huge undertaking. Like many of his works, this is a unique reference volume with many uses.

Joe Douglas



CAVES AND KARST OF SWITZERLAND

Andres Wildberger and Christian Preiswerk. *Speleo Projects, Basel; 1997. 208 A4 pages. Hardbound ISBN 3-908495-05-9; softbound ISBN 3-908495-06-7. Available in the United States from Speleobooks, Box 10, Schoharie, New York 12157, for \$29.50 soft, \$38.50 hard, plus \$4 shipping.*

This new book, published just in time for the International Congress of Speleology in Switzerland last summer, is very much in the spirit of recent NSS convention guidebooks. That is, it is a monograph on the caves and karst of the area, without any effort to actually be a guidebook. As one would expect from Speleo Projects, publisher of, for instance, the Lechuguilla book, it is much better produced than the typical convention guidebook, especially in the quality and quantity of color photographs throughout. Following introductory material on the geology, biology (briefly), and history of Swiss caves, about thirty caves typical of the various types found in Switzerland are described, including 175-kilometer-long Hölloch, once the longest cave known in the world, and two thousand-meter-deep caves, Siben Hengste-Hohgant (1340 meters) and Mutteehöhle. Unfortunately, another difference from our guidebooks is that cave maps are included for only a few of them. There are a number of nice colored maps of the country that show the geology, climate, and distribution of caves. There is a table of the abbreviations at the back, but a political map of the country would have been helpful to us ignorant foreigners. The complete text appears in French, German, Italian, and English, which of course consumes quite a lot of space. The English version is very good and quite idiomatic, complete with a few dangling participles. Unfortunately, even the use of exit as a verb, which is distracting to the experienced reader, has reached Switzerland. *Caves and Karst of Switzerland* is a very nice and reasonably priced introduction to the interesting caves of a small country.

Bill Mixon

1998 International Caving Calendar

Speleo Projects proudly presents the new International Caving Calendar for 1998 in TOP-quality color!

This year's calendar has a calendar-block with days of the week on light colored background. A selection of 12 pages plus the title-page brings you once again the very best work of the world's leading cave photographers, showing caves from U.S.A., Austria, Cuba, Ethiopia, Spain and Switzerland.

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SOCIETY NEWS

AWARDS COMMITTEE CHAIR NEEDED

After several years of service as Awards Committee Chairman, Mike Hood has elected to step down after the Tennessee convention so he can take on other duties in the NSS. Mike's done a great job with the Awards Committee and we're happy to see him continue to serve in other areas.

Now we need to find a replacement for Mike. The Awards Committee has a wonderful task—to help each of us thank those members who contribute to the Society and to caving. The chairman of the committee should have some experience in the society as a member for a few years. It's helpful to have attended regional events. It's also helpful to have been a recipient of a society award (although not required). Page 14 of the MEMBERS MANUAL describes the activities of the Awards Committee in general and one can look at the specific acts of the Society by checking out the *Board of Governors Manual* on the NSS Homepage.

For more information on the duties of the Awards Committee Chairman contact Mike Hood <mhcaver@aol.com> To apply for the position, contact Dave Luckins <dluckins@caves.org>

NSS OUTREACH COMMITTEE FORMED—CHAIR NEEDED

The NSS Planning Committee has been holding panel discussions at the last three conventions in an effort provide member input on future directions for the NSS.

One aspect of those discussions was a strong membership desire to see the NSS become more visible to non-cavers interested in caves and in cave protection.

In response to that desire, the Board of Governors has created an NSS Outreach Committee. The focus of the Outreach Committee will be promote the goals of the NSS in arenas where people would likely be interested in caves, but not inclined to actively engage in caving. The intent would be put forward the NSS as an organization whose goals are worthy of support and to put forward the NSS as a resource activity worthy of support.

There are two major benefits that we expect to see from the efforts of this committee:

1. We have a great many young professionals engaged in various aspects of speleological research. Membership in the NSS and research conducted under the wing of the NSS should be an enhancement to their careers. Currently this is not the case because the good work and name of our society is not well known. One aspect of this committee's work will be to increase the professional standing of our society within the scientific communities. Helping our young researchers improve their careers today will bring more stature to speleological studies down the road when the careers of our researchers mature and gain recognition.

2. There is an enormous reservoir of good will available within segments of the general public that we need to tap in support of our conservation, exploration, and scientific efforts. We all know there are folks who never want to enter a cave but are none-the-less interested in caves and in their contents. We need to find these people, encourage their interest in our work, and allow them to help us with funding. Our current spending efforts for conservation, exploration, and scientific study are not worthy of our society and we need to change that circumstance. The Outreach Committee will seek to encourage support from the interested public.

We need a chairman for this committee. The ideal candidate will be very creative, possess high energy, and be extremely sensitive. Why? Increasing the visibility of the society without creating new cavers is not going to be an easy task....in fact, it will be difficult. The wisdom of Solomon, and the patience of Job will be excellent attributes for our candidate.

If you are bright, creative, sensitive, up

for a real challenge, and interested in this committee, contact Dave Luckins by e-mail <dluckins@caves.org> and provide a short resume.

1998 BOARD OF GOVERNORS NOMINEES

The Nominating Committee is seeking knowledgeable, capable and selfless members as nominees for the Board of Governors. There are four open positions, each with a three year term. Those elected will take office at the 1998 NSS Convention.

Cavers having broad experience and exposure at the grotto, regional or national level are normally the most successful nominees.

Nominees will be required to submit a brief summary of their experience and a ballot position, limited to a total of 470 words. Nominees must also provide a picture, head and shoulders or face shot.

The **deadline** for accepting nominations is **15 March 1998**.

If you have an interest or any questions, please call, write or e-mail. Ted Kayes 8031 Whittington Drive, Richmond, VA 23235. (804) 272-4310 (H) or (804) 346-3697 (O). E-mail <tedkayes@richmond.infi.net>

IO REPORTS DUE SOON

Internal Organizations are reminded that to remain on the active list they must file a report every year. This year the reports should be received by February 16, 1998. Later reports are acceptable and will insure continuation of I/O privileges but there may not be time to process late reports for inclusion in the annual NSS *Members Manual*. Contact: Sections: Bill Bussey, 3007 Mt. Moriah Rd., Durham NC 27707-9023 (919)403-7275; Surveys: David Taylor, P.O. Box 242, Clarksville AR 73830 (501) 754-2408. Grottos and Regions: Evelyn Bradshaw, 10826 Leavells Rd., Fredericksburg VA 22407 (540) 898-9288.



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DOWN THROUGH THE DECADES

by Peri Frantz

History: In **January, 1948**, the NSS Newsletter moved into a new era. Editor W.S. Hill acknowledged the dedication of the Cleveland Grotto for "changing the publication of this news sheet to an orderly dependable affair from the sporadic process it was three years ago. ... Betty Yoe has taken care of most of the stencil cutting with some help from Anne Blaha. Bill Blaha ... has done a very commendable job of drawing our heading each month ... In addition George Risler and Al Mislav have helped in the assembling, stapling, folding and mailing." But Cleveland had grown tired of the continuous effort and resigned. As the NSS investigated alternatives, the Philadelphia Grotto volunteered not only to "attend to the folding and mailing ... (but to) prepare copy for a photo-offset publication so we could run photos, etc." A photograph of Bill Stephenson negotiating a squeeze (without a helmet yet!) accompanied the "Introduction to President Stephenson" in their first issue, demonstrating the advantages of the move from mimeograph to printing.

The **January 1958 NSS News** was devoted to the membership list. A quick, and undoubtedly unscientific comparison of the data to the 1996 Membership List indicates that approximately 15% of the 1958 membership were still members 40 years later. The 1958 News also listed eleven affiliated associations in foreign countries, six regions and forty-five Grottos. Ten years later the **January 1968 NSS News** listed eighty Grottos and nine regions.

"... the National Speleological Foundation ... has made a significant contribution to furthering the goals ... of the National Speleological Society ... (by) invest(ing) available funds to insure the greatest possible income" In the **January 1978 NSS News**, Janet McCormick provided an overview of this organization. "Before 1964 the income from membership dues and donations was administered and invested by the Trustees ... It was felt that more specialized care and investment of funds would be of benefit ... (and) a separate tax exempt organization ... was incorporated ... The National Speleological Foundation administers a number of funds ... the largest of these is the Endowment Fund" which manages dues for Life, Honorary, and Outstanding members. In 1978 additional funds included the Ralph W. Stone Research Fund, the James G. Mitchell Fund, the Lew Bicking Fund, the NSS Support Fund and the Cave Preserve Fund.

The **January 1988 NSS News** featured paired articles on the history and exploration of Wind Cave, South Dakota. Tom Farrell and Jim Pizarowicz provided a history *Early*

Discoveries. "No one knows who discovered the 8 by 12-inch natural entrance ... (however) the first recorded trip ... was made in 1881 ... and in May of 1886 the Custer County Chronicle reported: "A wind cave near Hot Springs, in Fall River County (sic) has been explored for 700 feet, and the end is not yet." Tom and Jim described the early explorations by Alvin McDonald, who "in March of 1891 ... spent 134 hours in the cave on 35 trips", subsequent development by John Stabler, and the eventual creation of Wind Cave National Park in 1903. Under the NPS, exploration continued sporadically, with cavers and college students playing important roles, until picking up in the late fifties.

Exploration: In late 1947, four members of the Lexington Grotto made a trip to Betsy Bell Cave, Virginia. In the **January 1948 Newsletter**, they reported that "The initial drop into the cave is well-liked and about thirty-five feet deep. This is approximately six feet in diameter at the bottom and is floored with debris, which we found later to be only a plug ... the main passage continues downward at an angle of about 80°. This passage averages about two feet wide ... and about fifty feet down there is a sheer drop of about six feet ... (and) a similar drop of about 25 feet ... The first drop we navigated with block and tackle, the second by rappelling. "

"As a severe test of the inexpensive (vertical) techniques used in the United States and Mexico, plans were made for an expedition to the Pierre Saint Martin in France and Spain to descend the 1030-foot Lepineux entrance shaft (at that time the deepest known vertical drop in the world)." The discovery of the Sótano de las Golandrinas soon usurped this title, but John Cole, Warren Heller, and Jim Chester, "still found the Pierre Saint Martin sufficiently challenging and interesting to warrant the trip." The first of two articles on their 1967 expedition appeared in the **January 1968 NSS News**. After securing the necessary permits and conducting a quick reconnaissance, they procured additional equipment and set up camp. "For the descent we used a continuous length of Samson 2-in-1, 1/2 inch diameter nylon rope, 1200 feet long. Just enough was lowered for each descent to facilitate cleaning of the ledges without endangering the rope. Descents were made with racks and ascents with prusiks or Jumars. Since water was encountered just below the first major ledge, dry suits were employed ... To secure the rope at the top, a very sturdy pillar was chosen. This pillar was originally constructed to hold the winch that was used for the 1960 survey expedition."

Mel Gascogne and Alf Latham reported on *New Discoveries in West Virginia's Canadian Hole*, in the **January 1978 NSS News**. In

the year since Doug Medville's *Stalking the Rubber Chicken* had been published the Canadian Cavers had continue to make major discoveries. McKeever's Passage, the Highway and Third Canyon were pushed to Monster Cavern, a chamber a quarter mile in circumference. Then, on Labour Day weekend, John Mort, Anneliese Recklies, Oliver Slupecki and Al Thurston pushed "though 500 ft. of low mud crawls to a stream running in a large tube ... (and then) a very low awkward crawl in water over cobbles ... (until) the passage relented somewhat. Suddenly footprints in mud were found in this new passage and 'B' survey stations were found on the wall. It was with unparalleled glee that the four returned to Ontario to break the news of a connection with the Rubber Chicken System. ... Over the Canadian Thanksgiving weekend some forty (!) cavers descended on the Swago Sugar Shack ... for a 'history making' exchange trip between Canadian Hole and Friar's Hole. ... a party of seven entered Canadian Hole ... while another party of five simultaneously entered Friar's Hole ... meeting in the connection series"

The history of *Early Discoveries* excerpted above formed the background for John Schelten's article *Windy City Grotto at Wind Cave*. Returning home from the 1969 convention in Wyoming, John, his brother Jim and Ralph Earlandson stopped off to see the cave. They were amazed to see the numerous leads leading off of the tourist routes, and dismayed to discover that "there was no complete map of the cave, just many different parts and pieces with what appeared to be many unsurveyed leads." and so they initiated a grotto project to complete the map and tie the existing pieces together. "I initially viewed the proposed project as taking a week to 10 days ... ". Eighteen people participated in a three week expedition in 1970 which was followed by a two weeks in 1971, with 27 participants. There were also a few smaller trips. Towards the end of the 1971 expedition, Chris Hill "forced himself down ... (a nine inch) fissure which dropped about 15 ft., ... (into) walking passage ... (which) boomed into the huge blackness of the Master Room. ... Past that narrow crack ... named the Chastity Belt, more than 25 miles of cave have been explored with much more yet to be investigated." After this breakthrough, activity picked up, and at the end of 1973 "the cave stood at 23.35 miles"

Change of address? Missing issues?

Please contact the NSS office,
not the NEWS editor.

TECHNIQUES AND SAFETY

Do What You Know!

by Chuck Henson

A while back, some friends and I went to a well known TAG cave that was mostly horizontal passage. There was reportedly a twenty or thirty-foot climb with a fixed rope near the back that we could climb to get to the very back of the cave. Because I wanted to avoid dragging my vertical gear through the crawlways to get to the one short drop, I decided to modify my rope walker system to a Texas system before we entered the cave. I left behind my chest plate and knee ascender and only took my foot ascender and Petzl safety. Other people in our group had the same idea.

Let me say that the rope walker system is my climbing system of choice. Using Petzl ascenders, the rope walker is easy on and off the rope and uses the muscles in both legs evenly to climb. I've used this system for many years now and through experience can negotiate lips and obstacles without compromising my safety. But, because of all

its parts, it can be a burden to carry through a cave. The Texas system is much simpler with two ascenders and you can forgo the chest harness on very short drops. The Texas system without a chest harness or safety **is not** the safest system to use.

When we reached the climb-up, we found the fixed rope hanging in a moderate waterfall with an undercut lip. I was the first to climb and reached the lip in about eight good steps.....exhausted! The Texas system is very strenuous! Because of the undercut, I couldn't force the upper ascender past the rock ledge. Having just two ascenders, I was now forced to either climb down, hang in the water (which had soaked the front of me already), or do something dangerous. Being somewhat determined by nature and hopeful that my fellow cavers would rescue me if I hung in the waterfall upside down, I decided on a dangerous move. I hooked my left arm around the rope, released my upper ascender, and pushed myself upwards as far as possible. By clipping the ascender on to the rope as high above the lip as I could reach, I managed to

get myself over the lip.

I yelled down to my fellow cavers to use three ascenders and sent down my upper ascender for the next person. The lesson here is to do what you know! If you haven't practiced a climbing system and don't know all the ins and outs of the system, don't wait until you're in a potentially dangerous position to find out you haven't totally thought it through! I put myself and the safety of my caving partners at risk by this foolish move. I should have asked for an ascender to be clipped to the main line so I could pull it up to me. This third ascender attached to my sit harness would have given me two points of attachment at all times.

I probably wouldn't have learned this lesson if the drop had been 100 feet or more, but like a friend of mine keeps saying, "the short ones will get you." So do what you know and don't get caught short.

REFERENCE

Cuddington, Bill. *Be Careful on the "Short Ones"*, NSS NEWS, July 1985, p. 241

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